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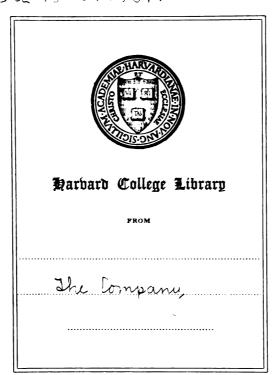
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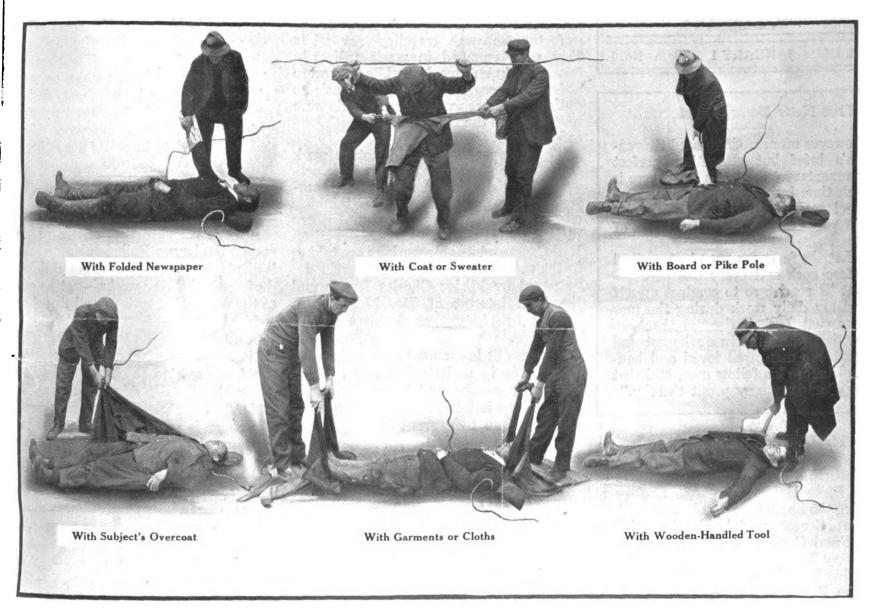
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Six Methods of Rescuing from Contact with Electric Current. (Where Possible, the Rescuers Stand on Dry Cloths or Wood)

Accident Prevention and First Aid Work

THE occupation of building and maintaining a telephone plant is not generally considered particularly hazardous, compared with the work in connection with railroading or around machines in factories, still it must be acknowledged that a certain number of accidents will happen in any body of 4000 men. The Company recognizes that there are accidents and that there will always be accidents, but it desires to reduce the number of accidents to a minimum. Every accident means that there is something wrong with the material, the methods or he man, or a combination of these.

A Safety Committee has been organized, with a

(Continued on page 4)

The Gas Engine and Its Application to Motor Cars and Motor Cycles*

By E. S. Foljambe

Managing Editor "Automobile Trade Journal" and the "Commercial Car Journal"

HE Gas Engine and its Application to Motor Cars and Motor Cycles" was the subject of a lucid and entertaining address delivered before 200 members of The Spare Pair Society in the Parkway Building, Broad and Cherry Streets, by Mr. E. S. Foljambe, Managing Editor Automobile Trade Journal and the Commercial Car Journal, on Thursday even-

*Presented before The Spare Pair Society, Philadelphia, Nov. 21.

(Continued on page 14)

Dr. Woods Hutchinson at The Philadelphia Telephone Society

F the many prominent speakers who at various times have addressed the members of The Philadelphia Telephone Society on other than directly related telephone subjects, none perhaps has created a stronger impression than did Dr. Woods Hutchinson, eminent physician, author and lecturer, who spoke before 464 members of that society at Griffith Hall, 1420 Chestnut Street, on Tuesday evening, December 3. "Health and Horsepower" was the subject of Dr. Hutchinson's common-sense talk, and for exactly an hour he led his interested audience into the realms of medicine, humor and sociology. It was the first time that some of the

(Continued on page 18)
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The New Year Supplement

However often we may read Stevenson's brief but altogether perfect commentary on a man's duty there is each time inspired afresh some personal resolve for the betterment of self or the greater happiness of others.

Let the form for 1913 be inscribed in re each and every one of us,—
"I resolve so to conduct myself my daily work during the new that I shall deserve that dision which marks an honest and eous man, well loved and honbefore his fellow men, and that company may profit thereby."

Mr. T. P. Sylvan to Speak

Fortunate indeed are the members of The Philadelphia Telephone Society in having the opportunity to hear Mr. T. P. Sylvan, Secretary of the Employees' Benefit Fund Committee of our Companies, January 7. Still more so are we in knowing that his subject will be "Some Phases of the Pension Plan"—a subject of decided interest to all of us now that the plan is in force.

Just how much of the complete detail has been determined upon remains to be learned and Mr. Sylvan is doubtless in position to enlighten us.

It is to be hoped that neither unfavorable weather conditions nor any other cause will prevent a record attendance.

Our Own Interests at Stake

The work which Dr. Shields is now doing throughout our territory should receive the careful attention and thought of every employee. It is not necessary for us to be engaged in outside construction

to be impressed with the necessity for care in accomplishing daily duties. The general belief that the repetition of duties makes us so familiar with them that we become careless while doing them is only too true. We take risks in going to and from the scenes of our work and become so accustomed to shortening the time for doing any slight duty that we fail to keep in mind the possibility of danger.

Just a few days ago an employee of an accident insurance company said that a year's test showed that the majority of its accident cases had occurred not while the unfortunates were traveling nor while they were engaged in work ordinarily termed as hazardous, but while they were at home or occupied with regular business duties. In other words, those people were more careless than even the ones with hazardous work.

The Company's first aid lecture work and other methods of saving us from preventable misfortune comes most opportunely at the season when we are thinking of others' comfort and pleasure. Very fitting also is the part which the American Red Cross and its able workers are taking in the campaign. The pamphlet of rules prepared by Major Charles Lynch and the keen interest of Dr. Matthew J. Shields are important features of the campaign.

It seems little enough to ask and expect each of us in undertaking any duty to be doubly careful and to remember the phrase that it takes longer to report an accident than to prevent it.

Familiarizing Mothers with Operators' Duties

Out of the West comes another new idea. The telephone operators of Des Moines, Iowa, according to an exchange, were "at home" one recent afternoon to their mothers.

The idea underlying the social phase of the function was to give the mothers of the young women a chance to see what their daughters were doing, a chance to learn something of the mysteries of the wonderful business in which they earned a living. Every courtesy was extended to the guests, refreshments were served, attendants carefully explained the workings of the system, and they finally went away happy in their new knowledge.

Although it is not for the purpose of urging a similar procedure that we speak of the innovation, one wonders, at first glance, why it would not be a good thing in the East as well as in the West.

Calmness as a Business Asset

Among the many telephone papers that come to the Editor's desk, none is reviewed with more interest than our contemporary from the land of the sunset, The Pacific Telephone Magazine.

In each issue, as one of its many good features, we find an unusually good editorial. Says a recent one: "The one who loses his temper hurts only himself. He injures himself in his relations with others and in his own self-respect. Calmness means a better digestion and fewer wrinkles about the eyes. The acquisition of what the world calls poise or mental balance is one of the most desirable attributes to cultivate. Its presence is an important factor to every one who desires to be and to be called a gentleman."

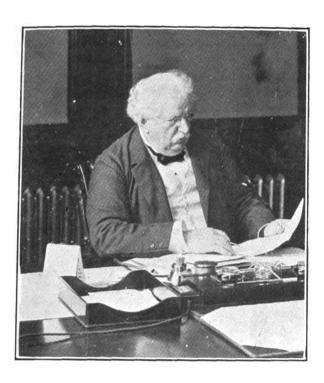
"Don't Argue; Explain"

Such is the substance of a card which one of the larger Philadelphia merchants is displaying throughout his establishment during the holiday weeks,—not as advice to the public, but rather as a helpful word to his thousands of employees.

Most of us are so thoroughly surfeited with the great variety of similar mottoe—the familiar "Do It Now," "This Is My Busy Day," "We Aim To Please," "Be Brief," etc., etc.—that a timely one like the above is rather apt to get lost in the business shuffle unless we hesitate a moment and give it fair hearing. For the thought, while perhaps old as the very hills, is particularly proper of application at this trying part of the year and worthy of a conspicuous place on the wall of every office and in the notebook of every employee during the next twelve months.

Mark it well—every employee who has a service difficulty to straighten out, a statement of account to interpret, a rule or regulation to justify, a contract matter to make clear! Remember that the Company stands or falls on the soundness of its business plan and performance,—and no amount of argument will avail where explanation fails to convince.

No subscriber is "all wrong," or "don't know what he's talking about"; not a bit of it. Right and wrong are relative terms with him, and are determined largely by his understanding of the question at issue. Explain to him; make it all clear in the mind of the person who has the last "say." He wants no arguments. What he wants is facts.



To the Employees of the Western Union Telegraph Company, Western Electric Company and the Bell Telephone System:

THE new plan of benefits for disability due to accidents or sickness, of insurance and of pensions, goes into effect with the new year.

Nearly 200,000 men and women who are now giving their best years to the telephone and telegraph service of the country will henceforth be assured of assistance in the exigencies of life, for which all are not able to provide, and will also be assured of a provision for their declining years.

It is but natural that every employee should desire to assume the normal responsibilities of life and to surround himself and those dependent upon him with the things that make life complete and enjoyable. Unforeseen happenings may make these responsibilities heavy burdens, and whatever may be put aside for the day of misfortune must in the beginning be small and accumulated slowly. A realization that obligations must be met in times of misfortune, as well as in times of prosperity, has made the need of something beside merely an old age pension appear absolutely vital.

Employers buy and employees sell service. Perfect service is only to be found when fidelity and loyalty are reciprocal in employer and employee. It is this relationship that brings satisfaction and success to both.

The intent and purpose of the employer in establishing a plan of benefits is to give tangible expression to the reciprocity which means faithful and loyal service on the part of the employee, with protection from all the ordinary misfortunes to which he is liable; reciprocity which means mutual regard for one-another's interest and welfare

This is justice, and without justice and sympathetic interest we cannot hope to do a thoroughly good piece of work.

The American Telephone and Telegraph Company, which centralizes the Associated Companies into one system, with one policy for universal service, has considered the interests of all workers and has made a comprehensive plan possible. It is the administrative clearing house and the underwriter of the necessary reserve fund upon which a general plan must depend.

One illustrative instance of the exercise of these functions has been the unifying of the various interests so that any employee may aspire to work anywhere in the country with uninterrupted benefits, and any company can obtain any man it needs without prejudice to his welfare.

In behalf of the management of The American Telephone and Telegraph Company, the Western Union Telegraph Company and the Western Electric Company, let me say that we have a personal interest in our public service, a personal interest in our employees, and a personal interest in our common country. It is our hope that what we have already accomplished has helped the men and women of the Bell System to become happier and better American citizens, and it is our New Year's wish that what has been planned for the future will contribute to their constantly increasing happiness and betterment.

Theoarail

THE Western Electric Company makes telephone switchboards ranging in size from "ponies," that connect with only ten subscribers, up to "multiples," that will accommodate more than ten thousand lines each.

Most of us living in the cities and larger towns are familiar with only one kind of telephone—that known as the "central battery" type, on which the mere act of taking the receiver from the hook summons the operator at the exchange. But there is another type, which, while it was formerly used all over the country, is now confined principally to the smaller towns and rural centers. This is the "magneto" system, on which, in order to call "Central," it is necessary to turn a crank before taking the receiver off the hook.

We are going to try and describe, as simply as possible, the operation of a telephone system employing this "magneto" type of instrument. In order to do this we shall trace the course of a message from one subscriber, through the exchange, to another subscriber, showing you just

shows the jacks for each line (105 in this case), with the ball signal for each line just above the jack.

Answering a Call by the Operator

Ranged along the front of the switchboard below the jacks, on a horizontal board known as the keyshelf, are two rows of "plugs," which are fastened on the ends of flexible cords. The cords are held down below the keyshelf by pulley weights, like those used on window cords. A "plug" is an apparatus something like a short pencil stub, which can be inserted in a jack to make connections between the two wires of the jack and the two wires in the cord.

The back row of plugs are called "answering" plugs, the front row "calling" plugs. Each answering plug is connected, through its cord, with the calling plug in front of it, the two together forming a "pair of cords"

forming a "pair of cords."

When Central sees the red signal over your number she picks up any one of the answering

She then pulls the key-handle toward her for a moment, and at the same time, with her other hand, turns the crank of a hand generator in the switchboard (this may be seen at the right, under the front edge of the keyshelf, in the picture). This rings the bell of telephone No. 49.

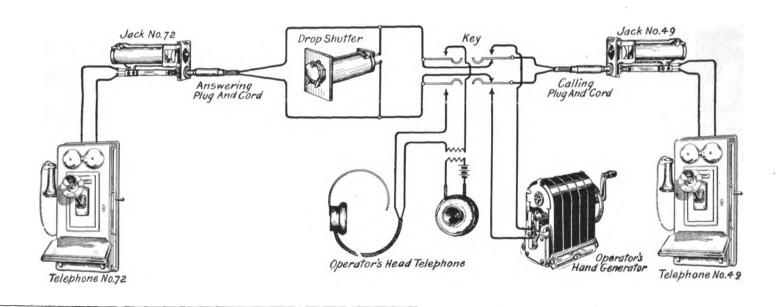
If you will refer again to the diagram you will notice that when the key-handle is pulled forward the calling cord is disconnected from the answering cord and connected with the operator's hand generator.

Conversation Between Subscribers

As soon as Central has "rung up" No. 49, she allows the key-handle to spring back to its normal vertical position, and you are in direct connection with telephone No. 49, as shown in the diagram. You are now ready to begin your conversation.

Ringing Off

When you have finished your conversation, you hang up the receiver and turn the crank to "ring



what happens from the time you turn the crank to call Central to the time when you hang up the receiver and "ring off."

Calling "Central"

Let us suppose that you live in a small country town; that your telephone number is 72, and that you want to call up someone whose number is 49. You go to the telephone, turn the crank, and take down the receiver.

Now look at the diagram. At the left you will see your telephone, with the two wires that connect it with a socket or "jack" in the exchange switch-board, marked with your number, 72. Just above this jack you will see a small ball with the black side turned outward, facing the operator, which is its usual position. But when you turned the crank you worked a small dynamo inside the body of your telephone instrument (this dynamo is termed a "hand generator"). This created a current of electricity which passed over the wires to the exchange, and made the ball swing around until its red side was exposed (white in the diagram), thus calling Central's attention to your signal. The picture of the No. 1220 switchboard

plugs and inserts it into the jack just below the signal—your jack, No. 72. This turns the ball back, so that its black side is again exposed, and also allows the current from your telephone to pass into that particular pair of cords.

On the keyshelf, in front of the plugs, is a row of levers, or handles, known as "keys," one belonging to each pair of cords. Central next presses back the key-lever corresponding to the pair of cords whose answering plug is in jack No. 72. This operation allows the current from your telephone to pass through the answering cord to the telephone she wears strapped to her head. She asks you, "Number, please?"

You say, "Give me four-nine."

If you will now again refer to the diagram you can trace the current from your telephone to your jack, through the answering plug and cord, and through the key to the operator's head-telephone.

Ringing the Desired Subscriber

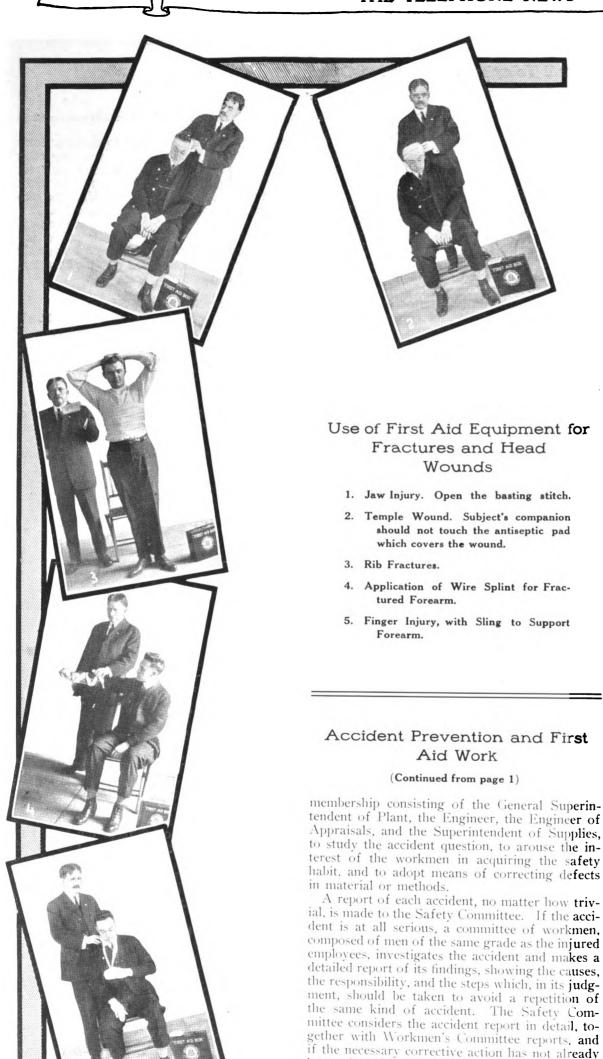
Central, leaving the answering plug in jack No. 72, now picks up the corresponding calling plug and inserts it in jack No. 49, thus connecting you with the line of the person you asked for.

off." This time the current from your hand generator, instead of moving the ball (over jack No. 72 this ball is "cut off" by the inserted plug), passes on through the answering plug and drops a small shutter that is set into the switchboard below the banks of jacks. There is one of these shutters for each pair of cords (the picture shows a pair of cords in use, with their corresponding shutter dropped for a "ring off" signal). This dropping of the shutter acts as a signal to the operator, who, first making sure that you are through talking, pulls the answering plug out of jack No. 72, the calling plug out of jack No. 49, and resets the drop shutter.

You and party No. 49 are now disconnected, and will remain so until either of you sends or receives another message.

Seasonable, instructive and in our own interests—is the address of Mr. T. P. Sylvan, Secretary of the Employees' Benefit Fund Committee, January 7, 8 P.M. SHARP, before The Philadelphia Telephone Society.

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terial and tools are sent to the Engineer for such action as may be advisable. The findings of the Safety Committee are handled in this way in order to assist the supervising employees in acquiring the safety habit, because it is necessary for the supervisors to be in sympathy with the safety campaign in order to maintain a proper degree of interest on the part of the workmen.

Descriptions of accidents of general interest to all workmen and the means of preventing similar accidents are published in the Company's paper, as well as safety hints which the Safety Committee issues either upon its own initiative or from suggestions which have been received from the men. The main idea is to prevent accidents by arousing interest on the part of the workmen in

protecting themselves.

Realizing that there are accidents, and desiring to mitigate the suffering of the victims of such accidents as much as possible, the Company decided, as part of the campaign to reduce the number of accidents, to provide rules for rendering first aid to injured persons and to furnish a first aid kit to each gang of workmen and to each office where the men are accustomed to congregate. The matter was discussed with Major Charles Lynch, Medical Corps of the United States Army, in charge of the First Aid Department of the American Red Cross. Major Lynch has been deeply interested in welfare work for many years and volunteered to prepare suitable rules and a suitable first aid kit for this Company. The rules adopted are the result of Major Lynch's work. They cover a wide range of topics from the dressing of cuts to the restoration of respiration.

The first aid box contains suitable material for the immediate dressing of wounds, bruises. sprains, fractures, dislocations, sunstroke, heat exhaustion, burns, scalds and frost-bites. They are intended to make an injured person comfortable until a physician can arrive at the scene of the accident, and to prevent, so far as possible, serious consequences which might result from an

accident.

In order that the Company's workmen might receive adequate instructions in rendering first aid, the assistance of Major Lynch was again solicited, and at his instigation Dr. Matthew J. Shields, Field Representative of the American Red Cross, has been assigned to this Company's work. Dr. Shields is one of the pioneers of the First Aid Movement in the United States and will conduct classes in first aid work throughout the Company's territory until all of the workmen have had an opportunity to attend at least one of his lectures. In his class work Dr. Shields gives a general talk on the subject of accident prevention, calling attention of the men to the fact that their part in the corrective work represents about 70 per cent., while the Company's part, together with the unpreventable accidents, represents the other 30 per cent, of the total. Dr. Shields then selects a subject from among the men attending the lecture, and while he describes the proper way of stopping bleeding and of applying bandages to the different parts of the body, he illustrates his description with actual applications of bandages to his living subject. He also shows the proper method of restoring breathing to persons who have been rendered unconscious, in any manner, by actual manipulation of the subject. The class work is handled in a most impressive

manner and cannot fail to appeal to the men.

Among other things, Dr. Shields shows the proper way to carry injured persons on stretchers and chairs, and a feature of the demonstration. original with Dr. Shields, is a stretcher made from two coats and two pike poles or digging bars. This stretcher is improvised as follows:

been taken, forwards its suggestions to the Plant Superintendent, who in turn forwards them

through the line of organization to the foreman

who is responsible for remedying the condition.

Suggestions relating to changes in standard ma-

One man holds the two pike poles, one in each hand, while a second man removes the coat from the first man by slipping it over his head so that the coat and coatsleeves are pulled over the poles. The other ends of the poles are then grasped by the second operator and his coat is removed in a similar manner.

This unique demonstration appeals especially to telephone men because it can be performed with the ordinary tools of trade and things which

the men have always with them.

This series of lectures should impress upon the men the necessity for exercising extreme care in their work and the realization of the responsibility of each individual in matters of safety.

The men's interest lies in preserving the "whole body" and the Company's in preserving a "whole organization" of skilled workers.

Below is given as completely as is available one of Dr. Shields' typical lectures:

Lecture by Dr. Shields

Dr. Shields said in part:

"To explain the contents of the first aid box and its use is the purpose of this lecture. First of all, however, I will explain something about the Red Cross, since I find such a general lack of understanding as to just what it is. The American Red Cross is a philanthropic institution supported by philanthropic persons, and this lecture which you are to hear is one of the ways it spends the money which is given it.

"Its work is devoted to humanity in general, no account being taken of race, creed or color. A special Board of Directors, composed of about fifteen men headed by John Hays Hammond, a noted mining engineer, and Julius Kruttschnitt of the Harriman lines, has charge of this branch of the work which is devoted to industrial workers.

"It may seem more or less paradoxical to give a lecture on first aid in a city like this (Philadelphia), where there are some ninety hospitals and hundreds of doctors, but there are few cases even in cities where immediate medical assistance can be obtained, for, unfortunately, accidents don't happen in front of hospitals nor doctors' offices. I recall an accident which happened in the city ot New York where fifty minutes elapsed before the ambulance arrived and the man who had been hurt very nearly bled to death.

"In the case of a shock caused either by electric current, gas or smoke, the doctor usually has very little to do with the saving of the victim's life, as whatever is to be done must be done immediately. Three or four years ago the world stopped to think how many things we were wasting; the newspapers and magazines began to talk about conservation. In this country we considered first material wastes, such as timberland and water power, and last of all we came to consider the most valuable thing of all, human life.

"In 1911 there were two million accidents in the United States which were serious enough to be reported. Of these, three hundred thousand either resulted fatally or incapacitated the victim for life. Seventy per cent. of these accidents could have been prevented; in short, they were caused by negligence on the part of someone, not always by any means the person hurt. To-day there is hardly an industrial company in this country which has not instituted some kind of a campaign on the subject of safety and first aid. The Bell Telephone Company fortunately has, compared with other companies, a very low accident rate, but it is anxious to cut down the number still further. In this, as in everything else, an ounce of prevention is worth a pound of cure; but if it is impossible to prevent more than a certain per cent. of these accidents, the best thing

Application of Triangular Bandage in Forming Tourniquets to Stop the Flow of Blood

- 1. Injury below the knee. Knots should rest on the arteries
- 2. Above the knee. Leg is suspended to reduce the flow of blood.
- Triangular bandage in each kit.
- 4. Kit contains all ordinary necessities.
- 5. Injury above elbow. Bandage encloses lump of coal or porcelain cleat to choke blood-flow in artery.
- 6. Injury below the elbow.

is to put the man who is hurt in as good shape as possible immediately, so that he will get well

with the greatest possible speed.

"This campaign for safety and first aid means (1) better safeguarding of dangerous machinery, and (2) making rules for safety. No matter how many rules we make nor how safely we install, only 30 per cent. of the accidents will be prevented unless we succeed in getting the human element to go along with these rules, and by the human element I mean the interest of the employee in following these rules. It is usually either the expert or the very ignorant employee who gets hurt. The first on account of his knowledge takes risks which he should not take and he knows are dangerous, and, finally, takes them so often that he forgets the danger involved; the latter gets hurt because of his ignorance and unfamiliarity with the conditions in which he works. In the safety campaign first aid helps in this way: It gets the men who know better to think about the danger of taking unnecessary risks and trains them to be more careful; also it tends to make the men cooperate with rules and safety devicesit makes them more loval to the company. Railroads especially try to get employees who are loyal, as they are considered a big factor in reducing accidents to passengers.

Whom does this first aid work benefit? First of all, the employee. If accidents must happen, and it is generally conceded that a certain per cent. of them is inevitable, first aid makes it probable that somebody will be at hand who can put the injured man in the best possible shape. Second, it benefits the company. If the employee who is injured is a trained man his place cannot be taken by an untrained man without a loss to the



Accident Prevention and First Aid Work

(Continued)

company. Very naturally the company is anxious to get him back at work as soon as possible. Lastly, it benefits the doctors and the hospitals. The sufferer who comes to a doctor after having first aid treatment has a cleaner wound and straighter leg, has lost less blood or has suffered less pain as the case may be, and he will in all probability get well in from ten to sixty days sooner than the man who has had to wait for the doctor. A great surgeon once said, 'The fate of a wounded man depends on whose hands he falls in first.' First aid means to do something intelligently and quickly.

"Telephone workmen are above the average in intelligence,-much more intelligent, as you can easily see, than miners and shopmen, on account of the nature and difficulty of their work. Intelligence here, as elsewhere, makes efficiency. No matter how difficult a piece of work may be, if we understand it, it has no terrors.

"In nine-tenths of the accidents which happen, something is done before the doctor or ambulance arrives. Often, however, it is first harm instead of first aid on account of the ignorance of the persons who are present at the time of the accident; for example, a man cuts his finger, a partially



Matthew J. Shields, M.D. Field Representative, American Red Cross

soiled handkerchief may be used to wrap up the injured finger, and if blood-poisoning does not result, it is not the fault of those present. In first aid it is just as important to know what not to do as what to do. First aid is simple and practical,—not a bit more difficult than the every-

day work which you are doing.
"The Red Cross offers prizes and grants diplomas provided one can pass examination which they submit with a mark of 65 per cent. These diplomas are signed by the President of the United States, who is always ex officio the President of the Red Cross, and in the very near future they will have a more than sentimental value on account of the increased importance which is being placed on this work by industrial concerns, especially to men applying for supervisory positions. The knowledge which the study of first aid supplies can be used not only in our everyday work, but in our home, in the case of an accident to our friend or neighbor.

"First let us consider the stopping of bleeding. In the stopping of bleeding it helps to consider the artery as a hose lying on the ground, the flow of which we are going to stop by stepping upon The bone represents the ground, and the pressure applied by the fingers or porcelain insulator, stone, nut, piece of coal, or wood made into a tourniquet represents the force we would apply with our heel in the case of the hose. The first impulse in the instance of a bad cut is usually to use wire or rope to stop the flow of blood. In nine cases out of ten, in order to bind the wire or rope tightly enough to be of any use we would bury it in the person's flesh and not improbably make it necessary for the physician to amputate the limb when he arrives. The best remedy in the case of bleeding is to use the triangular bandage which is furnished with the first aid box, in the center of which is tied the porcelain insulator or whatever you are using, employing a stick, pencil, screwdriver or cross-arm bolt as a twister. Pinch the artery against the bone at a point between the wound and the heart, tying it in place with the triangular bandage. If the cut is on the arm it will probably not be necessary to use a twister. If the cut is on the forearm, a knot in the bandage will usually answer better than an insulator or a piece of coal. If the palm of the hand is cut, however, on account of the two arteries forming a loop in the hand, it would be wise to use an insulator or some round object. Then tie the hand, tightly clasped around this object, and fasten the hand on the opposite shoulder so as to reduce the pressure of blood to this part of the body. The finger arteries are not large and finger cuts are seldom dangerous. Therefore it is unwise to use any pressure. A pad and a piece of gauze, both of which you will find in the first aid box, had better be applied. There is also a special finger bandage in the box if only one finger is injured. For the latter, two layers of gauze should be laid lengthwise on the finger, and then one or two layers wrapped around the finger to hold this in place. In case of cuts on the face or head apply pressure directly over the wound. Scalp wounds are seldom fatal because the hair of the head aids materially in clotting the blood. In treating a cut on the temple, one man should apply pressure with two fingers directly under the cut while the other places the bandage over the cut, tying it around the head with gauze, crossing the gauze below the chin if necessary to hold the bandage in place. If this is not sufficient to stop the bleeding place the triangle bandage over the gauze bandage, making the knot directly over the

"People often get excited at the amount of blood which flows from a wound, but it is usually much less than it seems. Nose-bleeding is very seldom serious, and if it follows a bruise on the the face usually prevents the unwelcome black eye. Especially in the case of robust persons it is more or less of a safety valve. If it continues long enough to seem dangerous, it may be stopped by stuffing cotton soaked in cider vinegar up the nose, by inserting cotton under the upper lip, or by applying a cold piece of metal at the back of the neck.

"Bleeding from the lungs usually is not immediately serious, but frightens the person injured. To relieve this apply an iced cloth or take ice in the mouth. It is better in this case not to allow the patient to lie down, but rather to place him in a half-reclining position.

"In the case of a stomach hemorrhage apply cloths soaked in iced water and give ice. It is essential to get the patient to the doctor or hospital quickly, as this indicates a serious crush or other internal injury. If necessary, stimulants may be used. Spirits of ammonia, a bottle of which is furnished in the box, is given in teaspoonful doses from the paper cup. It should always be diluted with ten parts of water. This may be repeated every half hour. Ammonia is a much better stimulant than whiskey because it does not interfere with any anesthetic which it may be necessary to administer, nor increase the bleeding as whiskey often does.

The symptoms of a shock are paleness, cold sweat, stupidity, a rapid, weak pulse, etc. The first thing to do is to find out if possible the cause of the shock, and the best treatment is to

apply heat to the outside.
"In case an accident has resulted in a crushed leg, the victim will suffer a shock on account of the crushing character of the accident, the bleeding, or on account of the pain. Of course it would be impossible to prevent the crushing after it had happened, and the first thing to do would be to stop the bleeding and to apply a splint which would in many cases relieve the pain.

"In treating wounds of the legs it is important to remember that the main artery is in the middle of the inside of the thigh. In most cases it is necessary to use a round, hard substance of some kind, if possible at least three inches in diameter, as this artery is about four inches below the surface. In fact it is so far from the surface that often even deep cuts do not reach it at all, but simply sever the smaller branches of it. If the cut is high on the leg it is often impossible to tie the bandage securely. In that case put the patient in a reclining position and apply pressure

(Continued on page 8)

Carrying Injured Victims (See page 7)

- 1. Stripping coat or sweater over pike poles.
- 2. Stretcher formed by two coats and two pike poles.
- 3. Lifting subject with previously bandaged limb.
- 4. Resting patient on chests of the men in order to go through a narrow pas-
- 5. Single carrier grasps both right and left hand of patient. This is known as the "fireman's lift."
- 6. Any chair pressed into service. This plan may be applied in offices where women are employed.
- 7. Hand chair with unconscious subject.
- 8. Each kit contains picric acid gauze for burns. Here patient's face and chest are bandaged.



Accident Prevention and First Aid Work

(Concluded)

with the fingers above the wound to the amount

of approximately half your weight.

"It is impossible to tell when a mashed wound will start bleeding. Often it does not start until half an hour or an hour after the accident happens, but it is wise to apply a tourniquet above the wound, because if it should start bleeding it often bleeds as freely as a clean cut. Even if the bleeding does start, however, pressure should be lessened slightly every twenty minutes at least.

"In case of a cut below the knee the round object which is being used to apply the pressure should be inserted in the hollow place at the back of the knee and a twister used. When a cut is on the upper part of the foot, apply the pressure on the instep; when it is on the lower part of the foot, apply the pressure under the ankle-bone. Cuts on the toes should be treated the same as finger cuts.

"A package of picric acid gauze is supplied with every box. This is invaluable in the case of burns or scalds. When a person is burned or scalded the great pain caused is due to the exposure of the burned part to the air. Cover up the burn as soon as possible and keep out all air. The best remedy to apply is this yellow gauze which has been treated with picric acid. This should be wet with steam if available, otherwise use hot water or even cold water before it is applied, and the burn or scald should be thoroughly covered with two thicknesses of the gauze. It may be further wrapped with cotton or the triangle bandage. Never put cotton next to the burn, and all the bandaging of the burn should be wrapped rather loosely. The next best remedy is a mixture of equal parts of linseed oil and lime-water applied on a cloth. Carbolated vaseline answers very well. Lime-water is effective on burns caused by sulphuric acid, if it is applied immediately, before the action of the acid has stopped. Alcohol or whiskey should be applied externally as soon as possible in the case of burns caused by carbolic acid, and afterwards picric acid or linseed oil may be used.

"In the case of a burn on the eye, lime-water should be used, never oil. Apply picric acid gauze or oil to burns caused by hot wax. Never attempt to scrape off the wax before treating

"Apply very little water to burns. The main thing is to cover them up as quickly as possible. In cases of emergency, baking soda, flour, starch, the white of an egg, or even molasses may be

"Artificial respiration is of prime importance to first aid. It is used for resuscitation after drowning, electric shock or suffocation by gas. There are no different methods, however, for different kinds of shock or suffocation. The same method may be used for all.

"Artificial respiration is used where the patient has stopped breathing, but very probably his heart has not stopped beating although there is seldom any pulse discernible. Oftentimes the person's heart has continued beating for five or six minutes after his breathing stops, but immediate action is the first principle of artificial respiration. Never stop to move the victim to a cleaner room or to do anything more than get him away from the source of the current. There are two well-known methods of resuscitation: one the Sylvester method, in which the patient lies on his back; and the other the Schaffer method, in which the patient lies on his stomach.

"In the Sylvester method it is necessary that

the patient's tongue be pulled out as far as possible by means of a clothespin from the box or a gauze bandage. A necktie or a handkerchief torn in strips about three inches wide and tied together may be used in an emergency. In case it is necessary to use a bandage, pull the tongue out, wrap the cloth around the top of the tongue, pressing it against the teeth of the lower jaw, and cross the bandage under the chin and tie back of the neck. Don't put a pillow, rolled up blanket, coat, or whatever is used in its stead, under the patient's neck, but rather under his shoulders. Remove his collar and tie loosen the shirts from the neck to the waistline and down to the skin, and the belt at the waist, and perform the motions as shown in the illustrations from fourteen to sixteen times a minute,—no oftener. If you count ten for each operation, the time will be

approximately right. Keep this up for at least forty-five minutes, unless, of course, the patient begins to breathe before that time.

If you have help, the second man should press with both hands on the lower ribs of the person and, at the same time, you press on his chest with the elbows as shown in the illustration. A third man could aid greatly by removing the patient's shoes and rubbing his legs upward toward the heart. Oftentimes a sharp blow at the bottom

of his feet with a stick will start the breathing.
"In the case of the Schaffer method it is not absolutely imperative that the patient's tongue be pulled out, but this always helps. Never change from one method to the other after vou have started on account of the loss of time which this necessitates. This method is often preferable in case a man's back has been injured or burned.



Artificial Respiration

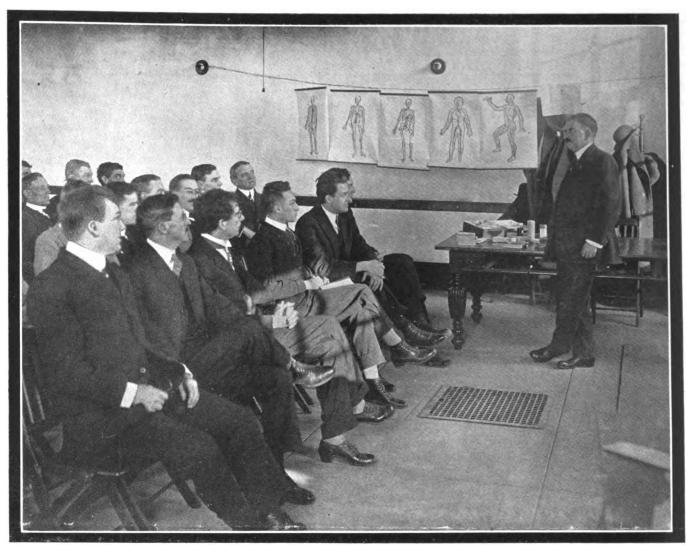
ABOVE: Prone or Schaffer method. The tongue is held with clothes-pin (wooden tongue pliers in every outfit).

CENTER AND LOWER: Sylvester method. Showing two positions of subject's arms. The tongue is held in position by gauze bandage around chin and neck. The feet are chafed briskly.



Part of a
Typical Class
of Employees
Hearing
Dr. Shields'
Lecture on
Accident
Prevention and
First Aid
Work

(Note contents of first aid box on table and the charts suspended on cord)



his arm broken, or in case there is not room enough to use the Sylvester method. Always turn the patient's head to one side to get his nose and mouth in position where it is easier for him to breathe. Use pressure with both hands over the lower part of the ribs at about the same rate of speed as used in the other methods. The rest of the operation is exactly the same. Both of these methods have been used for from two to three hours with success, and should be kept up for at least forty-five minutes, even changing the men performing it. If no encouraging signs appear, if necessary keep the operation up until you are sure there is no hope.

"In attempting to remove a man from a live wire, never go at him with bare hands; rubber gloves, a dry rubber coat, a board to stand on, a woolen coat or several thicknesses of newspaper will all help to insulate your body so that it is safe to touch the person through whose body the current is flowing. If none of these means is available, a stick or a long-handled shovel may be used to push the man away from the wire, or a coat held between two people, each taking a sleeve, may be used to pull him away from the wire. Don't use a rope if you can get anything else, as it is apt to act as a conductor, especially if the least bit damp. If the man is hanging from a wire, oftentimes a sharp blow of the wire with a stick or a kick or a push with the foot will serve to shake him off.

serve to shake him off.

"A wire gauze splint which is also contained in the first aid box is used in the case of fractures of the arms or legs. If nothing is at hand to use as a pad, the wire gauze should be applied outside of the coat. The gauze should be applied lengthwise along the arm or leg, then bent to conform to the shape of the limb, and held in place by the triangle or other bandage. When placing a fractured arm always be sure that the thumb

points toward the face in order that the bones may be in the right position. In placing a leg fracture in a temporary splint, the great toe should be in line with the nose.

"If a sling is used, make it as comfortable as possible, adjusting the length to the patient's convenience. You will find safety pins in the box for fastening the sling. In all cases of fractures, proper first aid treatment saves from two to three weeks' sickness, and in nine cases out of ten, if a temporary splint is applied before moving the patient at all, the leg or arm is usually not much deformed; and if a temporary splint is applied effectively, the man gets to the hospital or doctor with a fairly straight leg or arm.

"Telephone men who work in conduits come in contact with sewer gas and illuminating gas. They are seldom rendered entirely unconscious by it, but are often rendered more or less groggy. Fresh air is the best remedy for this, and if possible get the patient into a strong draught. It is not necessary, as some people believe, to walk the patient around in order to keep him from going to sleep, but fresh air is imperative.

"In removing foreign objects from the eye use a loop of horsehair, the corner of a soft hand-kerchief, or a loop made out of a small violin string. Never use or allow anyone to use a tooth-pick, match or pencil. The eye is much too valuable and delicate to allow any uncertain methods to be employed, and there is so little blood circulating in the cornea or outside covering that it is difficult to tell how seriously you may have scratched it by employing anything the least bit rough or sharp. In this, as in all other accidents, remember that it is better to be safe than sorry."

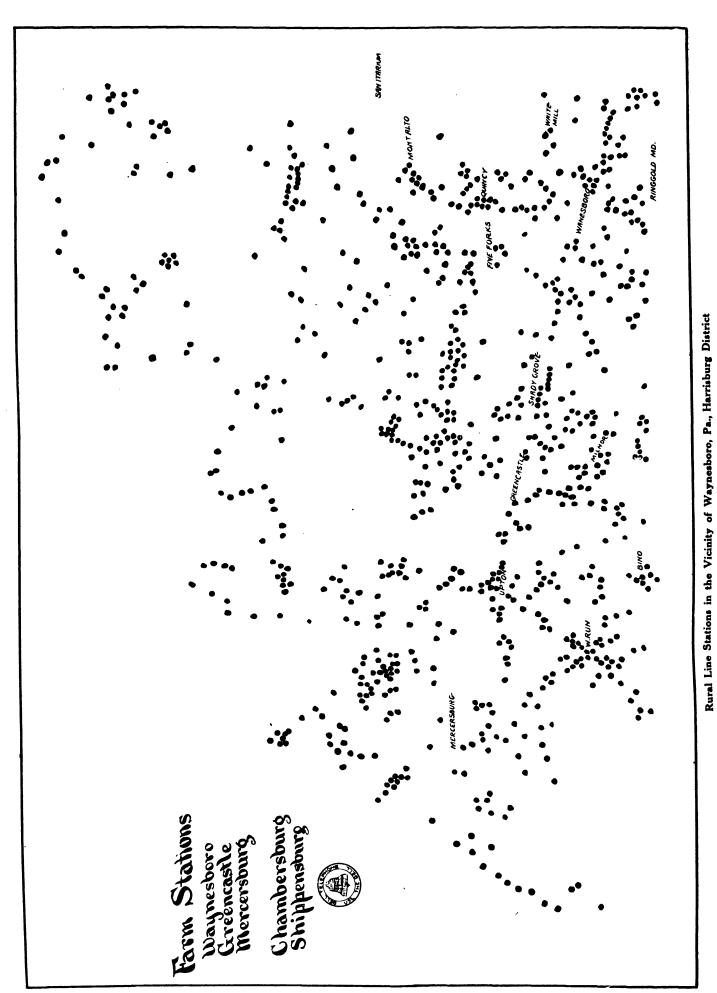
The schedule for Dr. Shields' lectures as so far planned is as follows: Prior to December 17, Plant Philadelphia; December 17 to 19, Plant

New Jersey; December 19 to January 4, Plant Eastern Pennsylvania; January 7 to 21, Harrisburg Division; January 21 to February 8, Pittsburgh Division.

Philadelphia's Christmas Traffic

The days preceding Thanksgiving and Christmas always bring to Philadelphia the two heaviest traffic loads of the year. This year a six-inch snowfall, early on the morning of December 24, increased this load tremendously, piling up by far the heaviest traffic load ever handled in Philadelphia, especially in the central offices serving mostly residence subscribers. Fortunately there was no sleet and for this reason the plant was in an unusually good condition. Evidently the storm made a huge number of people see the advantage of shopping by telephone at the eleventh hour, and the satisfaction of a personal greeting by wire on Christmas Day. The percentage of busy reports was very high. An unusual number of toll calls was handled to the suburbs and surrounding country, the completed toll business showing an increase of twenty-five per cent. over the previous day. Great credit is due to the operating force for doing an excellent job under difficult circumstances.

Promptness is a characteristic of Bell Telephone Company men. Let it apply also at 8 o'clock, January 7, when Mr. T. P. Sylvan speaks at 1420 Chestnut Street, Philadelphia.



(This map in the office of W. J. C. Jacobs, Local Manager at Waynesboro, shows one of our best rural developments)

Atlantic Coast Division ~ JRANDERSON. Division Correspondent

Camden District. Haddonfield's underground system is now complete. This work has cost \$6000. In addition new aerial cable was placed at a cost of \$2800. This borough can now boast of telephone facilities as efficient as any town many times its size.

Applications for two private branch exchanges were obtained in Camden by W. H. Bottger—one from the Esterbrook Steel Pen Company, 2 trunks and 5 stations, and one from Messrs. Berry & Riggins, attorneys-at-law, 2 trunks and 5 stations.

While soliciting in Riverside one of our salesmen met with an unpleasant experience. In order to save the installer who would follow him and make the necessary changes, from a repetition of the same experience, he requested the following be pinned onto the line order: "(Sub.) is in bed on the first floor—an invalid. He has a large mastiff dog (vicious) in the house. To get in, go to the back door and knock; open door and go in after you knock. The man will send the dog into another room. There will be no one to let you in."

The underground conduit between Camden and Collingswood, costing \$12,000, has been completed. Of this equipment 62½ per cent. will be used for toll business and 37½ per cent. for exchange service.

Mr. L. Heckenhorn, the Haddonfield troubleman, was called to the rescue of a kitten at the top of a fifty-five-foot pole of the Public Service Corporation in Haddon Heights. Coming through Haddon Heights on his motorcycle he was stopped by a representative of the S. P. C. A. and asked if he would climb the pole and go to the rescue. The cat was brought down without delay.

Poles and strand have been placed for the Gloucester-Woodbury toll cable. There will be 14,500 feet of 84-pair cable placed, and this new cable will contain 14 pairs of 13-gauge, 34 pairs of 16-gauge and 36 pairs of 19-gauge.

An up-to-date Beverly, N. J., druggist is quite enthusiastic over results obtained by a joint window display, a reproduction of which is shown on this page.

The feature of the display was the telephone instruments hanging in the window and others placed in a semicircle at the bottom, with all lines leading to and through a card bearing the number 30, the telephone number of the store. The window was decorated with toilet articles, and the letters on the window proclaimed the fact that four hundred people in Beverly could call the store and have their wants attended to with the least possible trouble.

"Special Attention to Telephone Orders" cuts are being used liberally by Woodbury merchants, and it is unusual to find an issue of a Woodbury paper in which they do not appear at least once.

Aerial cable costing \$3000 has been placed between Laurel Springs, Stratford and Kirkwood. WRIGGINS.

Doylestown District. A Plan "A" rural company, to be known as the Kindytown Rural Telephone Company, furnishing service to six subscribers,

has just been organized to connect with our Doylestown exchange. This company makes a total of eighteen Plan "A" companies furnishing service to 242 subscribers connected with our Doylestown exchange.

HENNESSY.

Trenton District. A woman recently called "Information" at Trenton and wanted the telephone number of a person living on Clinton Avenue, one of Trenton's main streets, whose name and address she had forgotten, but whose number contained the letter R. The telephone number was secured by reading all of the subscribers' names on Clinton Avenue whose number contained the letter R.

GARWOOD.

Wilmington District. The Hercules Powder Company and the Atlas Powder Company have each signed for a No. 1 private branch exchange service with 3 trunks and 20 stations.

Rural Salesman B. C. Kirk sold to John J. Raskob at Claymont No. 2 private exchange service for his residence.

There was much speculation in Wilmington when, on November 25, an elaborate campaign was inaugurated to raise a fund of \$300,000 for building an extension to the Delaware Hospital and also for the establishment of an endowment fund. The plan was to raise the money through public subscription by twelve o'clock on the night of December 10, giving but twelve days for this enormous undertaking. Not less than two hundred unselfish men promptly volunteered their services. These two hundred men were organized in ten teams of twenty each. At 9 P.M. of the last day, when all of the teams reported for a final count, it was announced amid great excitement that about \$275,000 had been subscribed, leaving \$25,000 to be raised within the next three hours. Every available telephone instrument in and around the immediate vicinity of their headquarters was pressed into service and by 10.30

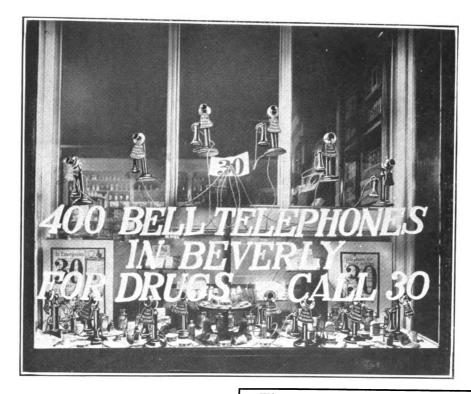
over two hundred persons had been reached and enough additional subscriptions pledged to make up the deficiency. Every member of the committee agreed that without the aid of the telephone their goal would never have been reached.

On December 14 at 8.10 a report was received that a Wilmington subscriber's telephone had been destroyed in a fire the previous night. Within fifteen minutes a very delighted subscriber was again enjoying telephone service.

George W. Bush & Sons Company is the second steamboat line of Wilmington to be convinced of the value of private line service between its points of operation. A contract has just been secured connecting the Wilmington and Philadelphia wharves.

Telephone "First Aid"

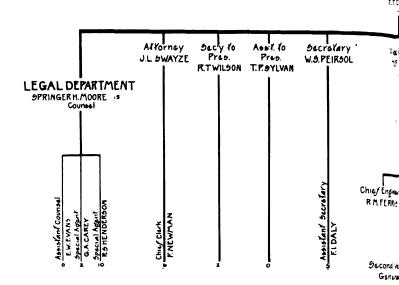
A Jacksonville (Fla.) man, who had his foot rather severely injured in an accident, was told by the doctor at the hospital where he had been taken that it would be necessary to amputate his foot in order to prevent blood-poisoning. He objected strongly to losing his foot and asked that he be moved to a telephone that he might make a long-distance telephone call. This having been done, he called up his brother, a well-known surgeon in Trenton, N. J. The connection was made at about midnight, and the Trenton surgeon told the injured man not to allow the foot to be amputated until after he arrived. He caught a train leaving Trenton at 4 A.M., arriving in Jacksonville early the following morning. After examining his brother's injuries he pronounced amputation unnecessary and took his brother from the hospital and back to Trenton with him. The rapid healing of the wounded foot proved that his judgment had been good, and the injured man thanks Bell telephone service that he has two good feet instead of one.

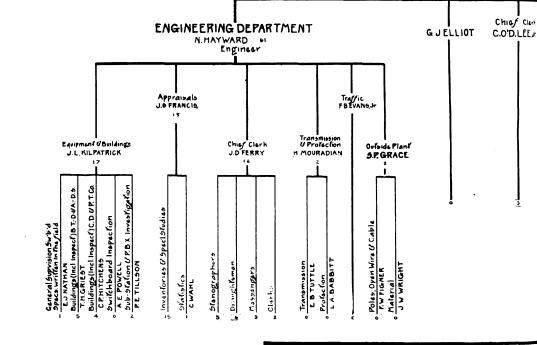


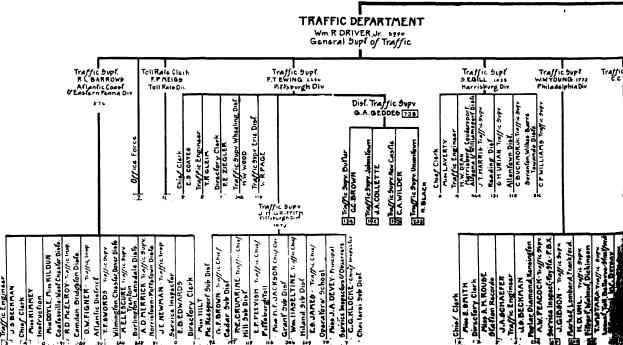
A Beverly, N. J. Druggist's Window

The first appearance of Mr. T. P. Sylvan as speaker of the evening before The Philadelphia Telephone Society occurs January 7, 8 P.M. Be there to enjoy the address.

Organization of
The Bell Telephone Company
of Pennsylvania
and Associated Companies
January 1, 1913







Operating in Pennsylvania, Delaware and parts of New Jersey, West Virginia 13

The Gas Engine

(Continued from page 1)

ing, November 21. That Mr. Foljambe's address was extemporaneous added to rather than detracted from its effectiveness and instructiveness, and at its conclusion he was the recipient of a well-merited and spontaneous rising vote of thanks.

To assist him in illustrating his lecture Mr. Foljambe made effective use of a four-cylinder Mack motor truck engine kindly furnished for the occasion by the International Motor Company. At the outset of his remarks Mr. Foljambe referred especially to this type of internal combustion engine in its application to the automobile and motor truck.

Discussing the marvelous growth of the automobile industry during recent years, Mr. Foljambe said:

'It is hard to realize that not over twelve years ago there were practically no automobiles or trucks on the streets in this country. For instance, in 1908 there were only 2500 trucks in use in the United States, in 1909 there were 3288, in 1910 there were 4000, and in 1911 the number jumped to 14,000. During this year, insofar as we have been able to get figures, there were produced in the United States 34,700, and according to figures which have been gathered for 1913, there will be practically 80,000 trucks manufactured in the United States. So that you see there will be in 1913 an increase of over 45,000 as compared with the present year, which is a larger number of trucks than have been built in any one year up to this time. And I believe these figures will be doubled in the succeeding year. covers gasoline trucks only.

"Concerning electric trucks, there are no accurate figures available, the manufacturers of that particular type of machine for some unknown reason being reluctant to divulge the statistics. The best available figures, however, show that there were manufactured in 1912 approximately 5900 electric trucks, and it is estimated that there will be 9500 turned out during the coming year.

"The gas truck manufacturers are, of course, largely in the majority, there being some 246 gas truck manufacturers doing business last year, as against 196 pleasure car makers, although up to two years ago the number of pleasure car builders largely exceeded those engaged in the manufacture of gas trucks. Next year there will be on the list 304 makers of gas trucks, this number including small manufacturers who are making their initial bow to the public, but who have not yet placed their cars on the market."

Illustrating the hold gained by the automobile on the American public, both for business and pleasure purposes, Mr. Foljambe referred to the development of one particular factory.

"Only a year or two ago," said Mr. Foljambe, "I visited that plant. At that time the factory was turning out a machine every six minutes, and it was thought the industry had then reached its zenith. Yet during the present season that same factory has produced about one machine for every minute of the working day, and has plans under way for the construction next year of 200,000 automobiles, which number almost equals the total output of the entire United States in 1911."

At this point Mr. Foljambe diverged for a moment and injected some humor into his remarks by describing the experiences of a friend, who had purchased and attempted to run a machine before familiarizing himself with its intricate mechanism. These more or less amusing or tragic experiences, as the case may be, were too

often characteristic of the new-beginner, and suggested the need of more mechanical knowledge on the part of the driver, whose well-meaning attempts to direct his car through crowded streets were often construed as a malicious design upon the life and limb of the pedestrian.

Beginning the technical part of his address, Mr. Foljambe took up the question of the wastefulness of the steam as compared with the gas engine. In this connection, the speaker said:

"In the steam engine, you have the boiler and the coal fire, the cylinder and the steam pipes, and a great part of the heat goes up the chimney. The boiler is particularly wasteful because it is always hot, and that heat should be doing work instead of heating up the boiler room. You have the pipes, which are also a source of loss for the same reason. Then in the engine you also have an enormous waste because of the heat losses to the cylinder walls, so that through these sources the steam engine is very wasteful. For instance, a locomotive is one of the most wasteful engines, and if you can get 10 or 12 per cent. efficiency you are fortunate.

"Now we come to the internal combustion engine. The name tells you what it is. It burns the fuel in the place where it is used—in the cylinder. The principle is simply that of putting in a combustible in the form of gas and mixing it with a suitable amount of oxygen. In this engine the oxygen is taken from the air; pure oxygen might do, but that would not be a practical proposition. The gas being mixed with the proper amount of oxygen so that it will burn in a closed space, is fired there by a hot ball, flame or spark of some kind. The two kinds I mentioned first have been superseded almost entirely by the spark, but many stationary engines were ignited by these processes.

"In automobile work everything depends upon the time at which the charge is fired, and if you fire it too soon, before the piston gets up near the top of the cylinder, you get a kick-back. Some of you may have had that experience. It is not a very pleasant one, and sometimes dangerous, and it is a wonder to me that makers have apparently made no serious effort to provide against

"In the modern automobile the engine is connected with a driving mechanism by means of a friction clutch. We have the power plant, or engine, at one end; we have this flexible connection, or clutch, back of the engine; and then we have the change speed gear back of that. Then comes the driving mechanism for the wheels."

At this point Mr. Foljambe proceeded to demonstrate the various parts of the Mack engine for purposes of illustration, showing how the cylinders were cast in pairs, and that each cylinder is in reality an engine.

"In each cylinder, just as we have in any engine cylinder," said Mr. Foljambe, "there is what is This is the movable part. known as a piston. The piston is fitted with grooves or slots cut for piston rings. The piston is not a tight fit in the cylinder, for the reason that no cylinder is round when it is hot unless it were heated to that same temperature and then bored and the finishing cut taken while hot. This is being done by some makers, who get the proper temperature by circulating hot oil through the jacket, and then when they bore it at that temperature it is perfectly round or cylindrical when hot. An engine having all the valves on one side of the cylinder, and consequently less metal on one side than on the other, expands unequally and is not cylindrical when heated to the working point. The piston is made to fit by use of packing rings. These are cast iron. The cylinders are also cast iron, but some are aluminum; but no composition of alumi-

num is as good as cast iron, the non-warping and frictional qualities of the cast iron being better. Cast iron is used for piston rings because it retains its springiness after being heated, while other metals lose it. These rings must be springy in order that they make a tight fit of the piston in the cylinder. They are turned slightly thicker on one side than on the other and are cut at the thin point, which renders the springiness of the ring uniform all around even though cut on one side. By this means the piston is made to fit tightly at all times in spite of uneven expansion.

"The top of the cylinder, of course, gets hotter than the lower end, and the same is true of the piston, as only the top of it comes in direct contact with the explosion. On account of this difference in temperature the piston is ground slightly conical, and not cylindrical, the top being smaller than the bottom when cold."

Mr. Foljambe then devoted considerable time to a discussion of lubrication and the relation of graphite thereto. In this connection, he said:

"It is a very good thing to have a little graphite in your lubrication. Cast iron is porous, and the pores naturally having sharp edges will take up the graphite, which does not burn nor pass away and does not volatilize, and after a time the pores will become filled and the surface and edges wear down very smooth, forming a glasslike surface. Now, anything that is to be put through the lubricating system must be very fine or it is liable to clog. You can get graphite that will go through a rubber cloth of 4000 meshes to the inch. The actual facts of the matter are that graphite is now made so fine that it will not even settle in water, though it is approximately two and onehalf times as heavy. The same advantages apply to the use of graphite in the speed change gearing, except that for the latter purpose a coarser grade of graphite may be used.'

The connecting rod and its bearings were next taken up and clearly explained in detail, Mr. Foljambe placing special emphasis on the importance of seeing to it that the parts were kept well lubricated and nuts and bolts kept tight, as well as the bearings. "Pounding" and the odor of burnt oil indicated lack of care in this direction, and were signs of trouble that required attention.

In summing up at this point, he said: "We have the cylinder, the piston with its piston rings in the cylinder, the connecting rod connected by its small end at the top by means of a wristpin with the piston and by its larger end at the bottom by means of Babbitt metal bearings with the shaft, so that when you get your explosion the piston is forced downward and turns the crank shaft."

"There is a peculiar thing, however, about engines," said Mr. Foljambe, "and that is, we only get one firing for every two revolutions of the crank shaft. When they first made gasoline engines they tried to fire at both ends of the cylinder, but the engine got red-hot and stuck, and they very soon gave it up. Then they tried to make them fire at only one end, and this gave less trouble. Somebody then found that if they compressed the fuel into a small space and then fired it, they secured very much better results, so that now what they do is to fire on each alternate stroke. When the piston goes down under the firing, or the working stroke, all the work is done on that stroke, and when the piston comes up you get the exhaust. The stroke (downward) draws in the new charge, and the following stroke compresses it ready for firing again, the engine being carried over the suction, exhaust and compression strokes by the action of the fly-wheel. In other words, we have four strokes, that is, what we call a four-cycle engine—firing, exhausting. drawing in a new charge and then compressing it.



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"Sometimes people mix up four cycles with four cylinders; four cycles is what takes place in in each cylinder, and while I am speaking of that I will mention two-cycle engines, which have only two operations to each firing. The piston goes down on the firing stroke, uncovering little holes in the side of the cylinder near the bottom, through which a portion of the old charge finds an outlet, and when the piston starts to come back it forces more out, and the new charge which is forced in under pressure is compressed. In such an engine we are up against the problem of keeping the old charge from mixing with the new. This has been one of the difficulties with the two-cycle engine."

The construction and function of the valves was dealt with in a manner exceedingly instructive and interesting to those who were more or less familiar with the details of engine construction, the stationary engine men taking special interest in the problem of starting stationary engines. Special caution was emphasized by the speaker that the valves must be kept clean and well fitting for maximum efficiency.

Attention was then directed to the crank case of the engine. In the Mack engine there are three main bearings, one in the center and one at each end, the fly-wheel end being the largest; this kind of engine (internal combustion) requiring the fly-wheel more than any other kind. The stored up energy, Mr. Foljambe said, is what keeps it turning over, passing the compression strokes without jerking.

Mr. Foljambe then took up in turn the various remaining parts of the engine, devoting considerable time in giving a detailed, careful explanation of the functions of the carbureter, spark-plug, magneto, muffler, etc., down to the non-essentials.

Perhaps of all the subjects discussed by the speaker, the greatest stress was laid on the imperativeness of proper lubrication and the vital importance of keeping screws and nuts properly tightened. With reference to the care of the machine, he said that he knew of one auto truck that is at present being driven about the city and suburbs sometimes at a rate of thirty miles an hour with a burden of four tons. After eight or ten hours of this kind of work, the car is run into the garage without the slightest attention, and the owner wonders why the machine does not always stand up. This lack of care on the part of drivers temporarily benefited the manufacturer in that it shortened the life of the car and created a market for a new one, but in the long run this was bound to redound to the disadvantage of the automobile industry, as it reflected upon the value of the motor truck as a commercial commodity. Mr. Foljambe concluded his remarks by appealing to the men who had to do with trucks and engines to acquire such knowledge about the machines as would enable them to detect the first sign of trouble.

At the conclusion of his remarks the speaker kindly invited questions from the audience on any point that he had covered that was not clearly understood or that he had not discussed at all. This resulted in a number of new points being raised and discussed, after which the audience dispersed, feeling that a pleasant and profitable hour had been spent in listening to a gentleman who possessed the happy faculty of being able to impart to others the knowledge he had acquired through practical study and experience.



"Better Be Safe"

These accidents are reported for reading by those men who otherwise might not hear of them. They are a continuation of those mentioned in our September 1 issue:

A lineman was helping to pull a thirty-foot pole from a pole pile. After the chain had been adjusted the team started on its own accord, catching the man's leg between two poles. This accident could have been avoided by closer attention of the driver to his horses.

While a cable-splicer was wiping a joint in a manhole, the solder dropped off the joint into the catch-pan and splashed into his eye. This could have been avoided, at least in part, if the splicer had followed his instructions to use a piece of paper in the bottom of the pan.

How Newspapers Regard It

"But even Doctor Eliot must admit that his five-foot shelf cannot be complete without a telephone directory."

Stationery Note

As a matter of security and economy our Cambridge, Ohio, office people use pins instead of clips, whenever possible, to fasten correspondence and other papers. The point of the pin is concealed between two or more sheets of paper to avoid danger to the handler. This plan, adopted in several other offices, has proved thoroughly satisfactory.

Notice to Telephone Pioneers

The office of the Secretary of the Telephone Pioneers of America has been removed to larger quarters, 30 Church Street, Room 730, at which place the Secretary will be glad to receive any Pioneers visiting New York.

The group pictures of the members in attendance at the second annual meeting at the Hotel Astor in this city are now ready and may be had direct from the photographer or from the Secretary of the association. The price of these photographs is \$1.53.

Market Street
Window Sign of a
Philadelphia Druggist
(He originated the signs,
attracted local users
and obtained many
telephone orders
as a result)

Another Good Installation at Wildwood

By C. A. Guenther, District Correspondent,
Atlantic City

On December 2, 1912, Wire Chief H. M. Wise, at Wilwood, N. J., learned that the Wildwood and Delaware Bay Short Line Railroad Company desired telephone service at its terminal, Oak and Philadelphia Avenues, Wildwood, N. J., and also on the mainland, at the junction point where connection is made with the Reading Railroad Company.

He sold No. 1 private branch exchange cordless switchboard service with two extension stations at the terminal and a multiparty station at Wildwood Junction. They requested that service be installed by December 12, the day the line would be opened.

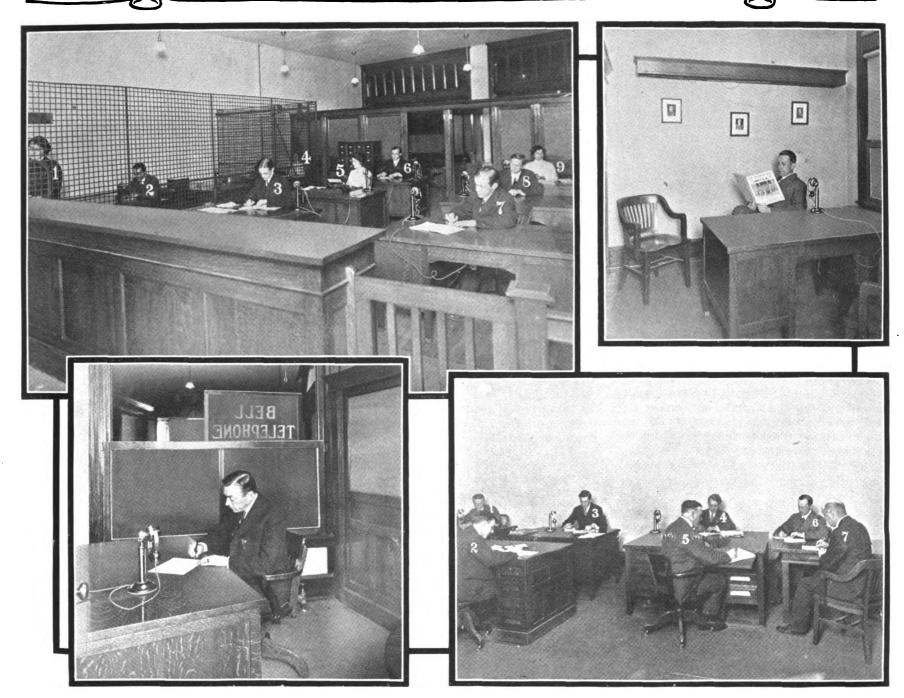
To do this it was necessary to order all material and lay 150 feet of underground conduit on Oak Avenue, pull in underground cable, mount and connect underground cable terminal, install switchboard and stations at the terminal in Wildwood, and erect five thirty-five-foot poles and string necessary aerial wire to furnish service at the junction point.

Mr. Wise, with the help of Cape May Wire Chief W. N. Booz and Lineman Jaggers, completed this conduit, cable, pole and installation work in time for the opening of the line on December 12, and received the hearty thanks from the officials of the line for the prompt installation.

This railroad company is using the telephone service entirely for dispatching trains on the line between Wildwood and Wildwood Junction, on the Reading.

Crowds are desirable at times; one of those times is January 7. The society, subject and speaker should also arouse personal interest in OUR Pension Plan, (1420 Chestnut Street, Philadelphia).





Views of the Company's New Camden, N. J., Offices

UPPER: 1, Miss E. W. Rice; 2, H. R. Rittersbach; 3, W. H. Bottger; 4, Miss M. V. Schuyler; 5, Miss C. D. Ginsburg; 6, C. B. Wriggins; 7, L. A. Craft; 8, H. B. Hunt; 9, Miss L. K. Hoover.

LOWER: T. B. McClain, District Manager.

UPPER: W. F. Repp, Plant Supervisor.

LOWER: 1, J. A. Doyle; 2, O. W. Turnbull; 3, W. C. Culin; 4, J. I. Dimond; 5, J. J. Bell; 6, W. C. Graffen.

Philadelphia's New Jersey Neighbor

Camden, the Busy Manufacturing City

By C. B. Wriggins, Chief Clerk, Camden District Office

UR new joint telephone-telegraph office building in Camden, N. J., has been completed. The Commercial and Plant departments have moved into their respective quarters and arrangements are being made for the local office removal of the Western Union Telegraph Company from its present location to the same building. We now conduct a Class "A" office—i.e. receive telegrams at the counter and transmit them by telephone to the telegraph office. On February 1 the Class 10-A joint office will be conducted by the Western Union removal to this building.

Camden has been the butt of many jokes from stage folk and others, and while the originators might have been justified in former years, they would be enlightened now by a trip over the Delaware.

Suppose we go instead. Then we can judge of the justice or injustice of their comments.

Leaving the port of Philadelphia on the bow of a ferry-boat, the first view of New Jersey will impress one with the fact that something is being manufactured over there, or coal is being burned just to use up the supply. The large smoking chimneys plainly indicate prosperity.

One very impressive-looking plant, at least from the size of the buildings, is the factory and offices of the Victor Talking Machine Company. The name "Victor" is impressed upon the people of Philadelphia day and night. During the day it can be seen at the top of the standpipe and stack, and at night in the form of an immense electric sign, which is in direct line with Market Street, Philadelphia, and from its location becomes as prominent as any electric sign in the Quaker City

Digressing a moment, it might interest you to know that the Victor Talking Machine Company has a record of marvelous achievement and growth. The "Victor" was born in 1898 in a small workshop in Camden. The company was incorporated in 1901, and at that time occupied one four-story building. To-day the business has grown to enormous proportions and furnishes employment to 4500 persons. The plant covers about 700,000 square feet of ground space, upon which many buildings have been erected; the regular type of building being six stories in height.

We have just docked at Camden, and as we come up the ferry slip we are attracted by the large train-shed and depot of the Pennsylvania Railroad. Camden is a terminus for center and south Jersey, where 400 trains are handled daily.

As we start up Federal Street we see one of the largest retail furniture establishments in the country, namely, that of the J. B. Van Sciver Company. From the smallest of beginnings in

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1881, a twenty-foot store on Federal Street, this business has developed with great rapidity until to-day this plant covers more than six acres of floor space.

This being a "personally conducted" trip, with a limited amount of time at our disposal, we will call attention to a few of the different buildings

and business houses as we pass.

After Van Sciver's we pass the offices of the West Jersey & Seashore Railroad; the offices of the Pennsylvania Railroad, Amboy Division; W. S. Scull & Co., coffee roasters; Camden Post-Telegram; Camden Safe Deposit and Trust Co.; Camden Courier; Central Trust Co.; Public Service Electric Co.; Camden Fire Insurance Co.; and now before proceeding we will make a call at the new joint telephone-telegraph office at 521-523 Federal Street. Views of the building and offices are reproduced in this issue.

There are at present 4177 stations in Camden city and 5807 stations in the suburban district. While the development is not so high as in some other cities of 100,000 population, the percentage is increasing in proper proportions, when taking into consideration that 75 per cent. of the tenanted residences of Camden are said to rent for twenty dollars per month or less. However, our Commercial employees consider this only as a strong incentive toward a much greater station

I was particularly anxious that you should see the new district office, as we are very proud of what the Company has done. There are many favorable comments heard around the city regarding the improvement this building has made in the center of the business section. Its location is only a few doors from Camden's granite and marble county building. This was completed about 1907, and represents an expenditure of approximately \$800,000, not including the value of the ground donated many years ago.

The section of the city north of Market Street is principally residential, especially that part east

of Broadway, which is very desirable.

Were there an abundance of time we could profitably stop and see how and where they make Campbell's soup and Esterbrook's pens. We could also see C. B. Coles & Sons Company's lumber mills, the R. H. Comey Company's bleaching and dyeing plant, Farr & Bailey's oilcloth works, the Highland worsted mills. should include the New York Ship-building Company, one of the largest and most complete concerns of its character in the United States. It also makes a strong bid for supremacy over any other similar establishment in the world. company purchased 150 acres of ground and constructed a mammoth plant. Four ships of the largest tonnage may be built at one time.

The Munger & Long business—department

store—is perhaps the city's largest, at the corner of Broadway and Federal Street. Directly across the street is the magnificient county building, previously mentioned, covering the entire square between Market and Federal, Sixth Street and

Broadway.

Camden possesses adequate banking facilities. There are three national banks and six trust and safe deposit companies. The first bank in the state was established within the present limits of Camden County. It is now merged with the direct successor of one of the six state banks authorized by the Legislature of 1812.

The businesses and buildings here mentioned are naturally only a few of the many prosperous business establishments picked at random. As you have been traveling over the city, it might be opportune to tell you a little about its origin.

The city of Camden, founded about 1682 and incorporated in 1828, has from its early settlement been a river or ferry town, being originally known as Cooper's Ferries. It was named from Charles Pratt, Earl of Camden, who was a strong advocate of constitutional liberty and very friendly to the American colonies. As evidenced in its early history, by its fair dealings with the Indians, Camden has never deviated from the examples thus set of honesty and justice to all. No tales of Indian massacres or broken trusts mar its history. While no battles were fought within its boundaries during the Revolution, it was the scene of several sharp skirmishes and was much frequented by the British soldiers during their occupancy of Philadelphia.

in. Of these 29 when canvassed signed applications for either new or additional equipment, bringing to the Company new revenue to the amount of \$622.80.

Below are the names of those members of the club who handed in the names of prospects:

READING, PA.

Traffic Department—Clara Grim, E. Haring, H. D. Mercer, Miss Schwartz, E. W. Ulle, S. H. Urian and Mabel Williams.

Plant Department-Sam Beggs, E. P. Laird, Ben Lenhart, R. I. Reppert, Harry Wagner and H. O. Hohl.



New Building at 521 Federal Street, Camden, N. J., Occupied by Our Plant and Commercial Representatives

Good Work by Reading Boosters' Club

The Boosters' Club of the Reading District, comprising all departments, which was organized in November has got down to real work. A number of names were submitted and a vote was taken, naming it "THE BELL-GROW."

The enthusiasm of the employees in this new effort has just begun to tell. Many of them are just realizing that they are unable to reach their grocers' or other trades people by telephone and they are gradually having them connected, while others find that numbers of their friends are in need of telephones and their names are being suggested. The loyalty and interest which the employees have for their Company has been clearly shown in the past month, as nearly everyone has endeavored to aid along the move for additional business. The attached shows the report of the number of prospects submitted, the number of applications signed and the amount of revenue. There are not a few not represented in this month's report. This is possibly due to the

fact that they did not have suggestion books. Now that everyone is supplied, it is absolutely certain that a large report will be shown in December with almost every employee represented.

In all, the names of 125 prospects were handed Commercial Department—Ethel Bicking, May Brown, J. M. Hykes, Leroy Printz, Carrie M. Shirk, Fred Stevens, A. E. Riegner and Esther H. Werner.

POTTSVILLE, PA.

Traffic Department—A. Brown, A. Folk, Helen Wilson, M. Yocom and M. Siebankaes.

Plant Department—J. M. Donder. Commercial Department-J. W. McCool.

SHAMOKIN, PA.

Plant Department—H. T. Morgan.

LEBANON, PA.

Plant Department-W. H. Burkhard and G. W. Levengood.



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Dr. Woods Hutchinson at The Philadelphia Telephone Society

(Continued on page 1)

listeners found seating room only on the platform. Prevention of disease rather than its cure was the keynote of the speaker's remarks. Beginning with the ancestry of health, Dr. Hutchinson discussed the human machine and its development, the relationship of the physical and mental and all the various phases of human life from childhood to old age.

"The human body is an engine," he said in part, "and like all other engines its first requisite in generating energy is proper and heat-producing fuel. Put poor fuel or too little of it under an engine and it will fail to produce. This is equally true of the body and its fuel called food.' Leading thus to the vital question of diet, he went on to expound the theory that "the food that tastes good, and smells good, and appeals to the normal appetite is for the most part the healthful and energy-producing food." "Good food must taste good," continued the speaker. "It must have substance, and it must produce that comfortable sense of distention to the interior.

"There is a great deal more danger of the average man under-eating than over-eating, and a good rule to follow is that a little too much of good food is just enough. The human stomach is geared for a continuous performance.'

Here the speaker took a fling at what he characterized as "diet delusions." "It used to be the custom of my professional predecessors,' ' he said, "in prescribing a diet for a patient, to find out what kind of food he was particularly fond of, and then forbid him these things under all circumstances. But the attitude of the medical profession has changed with recent discoveries, and it is now getting back to first principles. We have yet, however, much to learn. Whimsical and interesting as a study in credulity are the numerous impressions still abroad, especially in 'intense' and intellectual circles, that particular kinds of foods are 'bad for' particular ailments.

"These are easily traceable to that broad and omnivorous type of primitive human logic which, as Tyler pointed out, enables the Samoyed to see a striking likeness between a cow and a comet in that they both have tails. To take one of the crudest forms, there is a firm belief among certain peoples of Northern Europe that nursing mothers should never be allowed to eat fish or eggs, because since these foods have not the power of speech, their children of necessity would be dumb.

"To come a little nearer home, we have the flight of fancy, carefully produced and reproduced, I am sorry to say, in many so-called scientific works upon dietetics, that spices are to be interdicted in feverish, bilious or inflammatory conditions because they are supposed to be 'heating to the blood.' Here the childlike analogy between sensations of warmth produced in the mouth by these substances and a rising temperature is so clear as to be self-evident and is precisely of a type with the other and equally absurd popular superstition that red flannel underwear is warmer than white.

"In our first crude and childish experiments upon digestion," continued Dr. Hutchinson, "the first and most obvious test of the digestibility of a food applied was the length of time which it took to leave the stomach. With naive simplicity we took it for granted that food could only leave the stomach by way of asborption into the bloodvessels, and that the whole process of digestion was carried out in that much-enduring organ. But the stomach is little more than a place of

deposit for the food, where it may be sufficiently churned and partially dissolved in water, with the assistance of weak acid and pepsin before being passed on into the real digestive organ of the body, the small intestine. There is no necessary connection between the ultimate digestibility of a food and the length of time it remains in the stomach. The old tables of digestibility, which still encumber some of our text-books, were arranged chiefly upon the ease and swiftness with which particular food substances can be acidulated and passed on out of the stomach. Eggs, milk, sweetbreads and rice came first on the list, for they are either liquefied in the process of mastication by the saliva or so nearly so that a comparatively short stay in the stomach is sufficient to allow them to be acidulated and passed on for the serious process of digestion in the small intestine. Next came oysters, soups and the lighter meats; then beefsteak and bread, and fat and fried meats; and last of all pure fats. Naturally, pork comes last in this series because it contains large quantities of fat, and that fat is distributed among its fibers. And yet pork, although it is one of the slowest is also one of the surest foods that we have to give off all its energy to the body. Its very slowness of digestion is what gives it splendid staying powers for hard work, whether muscular or mental. As a matter of fact, I have seen more cases of dyspepsia cured by the use of breakfast bacon than by any kind of drug or restricted diet.



"An adult alimentary canal which cannot digest bacon or ham is not to be regarded as healthy, and instead of humoring a weak digestion it should be braced up and, under skilled supervision, educated to take what is given it and make no fuss. A healthy stomach, fit to cope with the emergencies of life, must be able to digest not only that which is digestible but also much that is difficult of digestion, and that is the standard that should be aimed at in dietetic therapeutics. Besides, a large bulk of indigestible residue is absolutely necessary to stimulate the lower bowel to proper action. We need 'hay' just as horses do. Pork, and ham and bacon, is easily our second most valuable food, and has laid the literal foundation of our Western civilization. What would an army, an exploring party, a railroad gang, a lumber camp or a harvest field be without bacon?

"Most of the restricted 'hygienic' diets on which our patients put themselves are chiefly notable for the fact that they are deficient in proper food value, and whoever lives on them will be dyspeptic just as long as he does so.'

Dr. Hutchinson took strong issue with the vegetarian, characterizing vegetarianism as "a

religious cult, and not a dietetic or hygienic "With vegetarianism as a creed," he school." said, "we have as scientific men no more quarrels than with any other creed. But when it parades in the guise of science we firmly but respectfully protest. Its contention that human life can be maintained in fair health and vigor upon a chiefly vegetable diet is absolutely unchallenged by us. There is no doubt about it. Indeed, nearly onehalf of the human race has been compelled from sheer necessity to prove that thesis in its actual experience, but we find absolutely no jot of evidence in support of a contention that there is any advantage or superiority in a vegetable diet as such, no more than there is any inherent superiority in a pure animal diet as such. Both are excellent in their places, and the best results, physically, mentally and morally, have invariably been and are yet attained by an intelligent and judicious mixture of the two classes of food. Parenthetically speaking, it may be stated that vegetarianism is the diet of the enslaved, stagnant and conquered races, and a diet rich in meat is that of the progressive, the dominant and the conquering strains. The rise of any nation in civilization is invariably accompanied by an increased abundance in the food supply from all possible sources, both vegetable and animal. There are no purely and exclusively vegetarian races known, and the decree of vegetarianism of a race or class is simply the measure of its poverty.

"If any individual prefers to restrict himself to a purely vegetable diet, including milk, butter, cheese and eggs, he is perfectly at liberty to do so, but that he will gain any advantage whatever from his abstinence from meat we are utterly unable to confirm. Whoever may be right, the extremist is absolutely sure to be wrong, and the pure vegetarian and the pure 'animalian,' if such an one exist, alike occupy positions which are in the eyes of science irrational and untenable. There is no valid or necessary ground except individual idiosyncrasies, so far as we have been able to discover, for the exclusion of any known article of food, whether vegetable or animal, from our diet list in health."

In discussing the value of bread as a food, Dr. Hutchinson expressed the conviction that the finer grade of wheat produced the most nutri-tious bread. "Nature is not a fool," he said. "Man, so far as he is natural, attains to a considerable degree of instinctive wisdom. It is to the biologist a most significant fact that the unvarying and constant struggle of rising humanity in the realms of diet have been first toward the securing of meat and second toward the acquisition of white bread—and as much of it as possible. The fiercest wars have been waged for the possession of the broad, level, alluvial plains upon which wheat could be grown, and nobody but a mountaineer or a very far norther would eat either rye, barley, oats or maize when he could possibly get wheat. And now comes science with a full and triumphant vindication of the rightness of humanity's instinct in this regard, and a demonstration that white bread, and the whitest of the white, is the best and most healthful food which the sun has ever grown from the soil.

Dr. Hutchinson's arraignment of patent foods, while humorous, was earnest and convincing. In this connection the speaker said:

"We are ready to chorus with Kipling's McAndrew, the 'Auld Scots Engineer,' speaking of the 'food' of his darling engines:

"'There's bricks that I might recommend—an' clink the fire-bars cruel.

Welsh—Wangarti at the worst—an' damn all patent fuel!'



"Some years ago a beef-tea was advertised as having the entire strength of a whole ox in a teacup. If this were ever true the purchaser would be led to believe that all had escaped but the smell.

"The chief strength of all patent foods lies in the advertisements, and eating the printed page is the safest and cheapest way to get it. White flour and sirloin steak, men buy and eat without urging. It is only the bran and the canned offal that have to be advertised. The virtue of all 'infant foods,' whose fat and stogy specimen babies gaze at us from the photographs of the prospectus, lies chiefly in the good old-fashioned cows' milk in which they are administered. Taken alone, babies will starve on them, or get the scurvy.

"To sum up as a class, the patent and prepared foods are 'bad medicine.' They are as far below naturally foods in nutrient value as they are in attractiveness; contain usually about 10 per cent. of the food value they claim; will not support life, easily upset digestion, destroy the appetite, and calorie for calorie are exceedingly expensive. The whole brood are like Hancock's tariff, 'for revenue only.' If they could be swept off the earth few would be a pin the worse, except the manufacturers.

"Get the best quality and widest variety of good, sound, toothsome old-fashioned foods that you can and let the near-foods and patent 'improvements' severely alone. You will save in health, comfort and pocketbook. Generally speaking, primitive man ate everything not too heavy to lift and not too big to cram into his mouth."

Continuing his treatment of the human body as an energy generator, Dr. Hutchinson declared that next to fuel a good draught is the most important essential. He said that cold air is beneficial to all classes, even to tuberculosis sufferers, a fact now generally recognized. Colds come from 'bugs' in foul air. Theaters, churches and other places with infrequent changes of air are especially prolific of colds. When closed tightly they serve the 'bugs' up to the people at frequent intervals. He denounced as superstition the belief that cold air causes colds, and made a strong plea for proper ventilation, both in the bed chamber and the work room. The fear of night air, for example, was denounced as a relic of superstition. After many years it was discovered that at night there is no other kind of air to breathe.

The importance of the necessity for proper rest was next taken up and dealt with at considerable length. "Sleep is a positive not a negative process. Go to sleep when you are tired, get up when you wake feeling rested," was Dr. Hutchinson's philosophy. "Obviously no hard-and-fast rule as to the number of hours of sleep required can be laid down," said the speaker. "Just as individuals differ in the color of their hair and eyes, the vigor of their appetite, their tendency to be fat or lean, so they differ in the rapidity of their recuperation during sleep. As has been often said, a few vigorous, energetic individuals seem able to recuperate with such rapidity that as little as four hours' sleep suffices them. To mention a few notable instances, Frederick the Great, Napoleon and his conqueror, the Duke of Wellington, John Wesley, and, in recent years. Edison, the inventor, were able to refresh themselves completely within this time. On the other hand, anemic and nervous individuals may recuperate with such extreme slowness that they require ten, twelve or thirteen hours of sleep properly to redress the balance. At a rough working average, it may be stated that the majority of vigorous adults require an average of about nine hours. The proverbs are as usual at sea, and have about the usual amount of influence over actual practice. 'Seven hours for a man, eight for a woman and nine for a fool' has been their dictum for centuries, but the average human being cheerfully plunks himself into the 'fool' class, much to his benefit."

The doctor concluded his plea for more hours of rest by reciting this stanza by John G. Saxe:

"Blest be the man who first invented sleep, But curst be he with curses loud and deep Who first invented and went round advising That artificial cut-off, early rising."

Dr. Hutchinson expressed the belief that the tendency toward shorter hours-which would enable the worker to have sufficient recreation and still secure sufficient sleep-would be conducive to longevity, and was given something resembling an ovation when he said that it had been proved scientifically that "the best way to increase the efficiency of any given man or body of men is to shorten his hours of protracted effort. The next best way is to lengthen his wages. It is necessary to concentrate our powers when we are at work and to stop when so fatigued that we lose our efficiency. Accidents, for example, are often caused by carelessness due to fatigue. We should drop our work at such times and take it up again when we feel refreshed. In rural districts where long hours are in vogue and they think they have the lowest labor costs, an actual test of efficiency would prove the opposite to be true.

"More and more we are learning how to concentrate our powers and to increase our initiative while shortening our working hours."

Following the lecture proper, Dr. Hutchinson invited questions, and a storm of queries greeted him. He explained in answer to one questioner that alcohol as such had no food value, and that its value as a medicine had greatly depreciated in the eyes of the medical fraternity.

"What about eating late at night?" was asked.
"Why not?" returned the doctor, explaining that he referred only to wholesome and easily digested food.

That too much water can hardly be drunk, and that drinking with meals was not injurious, providing that it is not so cold as to chill the stomach, were also opinions of Dr. Hutchinson.

Mr. H. C. Kunkel, President of The Philadelphia Telephone Society, presided over the short business meeting preceding the lecture. Mr. E. B. Zerman, of Trenton, N. J., introduced the speaker of the evening.

Development of Cable Manufacturing

The first cable of which there is any record was laid at Birmingham, England, in 1837. It was composed of a number of gutta-percha-covered wires encased in an iron pipe. Owing to the imperfect protection afforded by the pipe its life was very short.

During the next half century the problem of an efficient protective outside casing for the wires remained the most difficult one in cable manufacture. The period from 1837 to 1880 was largely one of experiment. Many varieties of telegraph and telephone cables were tried out during that time, but all developed that fatal defect of being non-moisture-proof when laid underground.

In 1880 a cable was finally introduced which attained some measure of success. It consisted of cotton-insulated copper wires bound together and drawn into 200-foot sections of lead pipe; the interior of the cable thus formed was then thor-

oughly saturated with paraffin throughout its entire length.

It was with one of this type that the Western Electric Company began its manufacture of cable in 1882, and continued with little change until 1891, when paper-insulated conductors were introduced. The substitution of paper insulation for that of wool or cotton resulted in such a remarkable improvement in transmission and such a decided reduction in cost, that the paper-core cable has almost completely displaced the older types.

Of the four principal manufacturing operations through which cable passes—insulating the copper wires, pairing the insulated wires, winding the wires into a cylindrical core, and sheathing the core—the insulating and sheathing processes only have undergone important changes.

The insulating operation was radically changed when the use of paper was inaugurated, a new design of insulating machine becoming necessary. The first method of applying paper insulation was to pull the wire through a die which folded a ribbon of paper lengthwise around the wire. Spirals of different-colored threads were then wound around the insulated wire in order to keep the paper binding in place, the various colors serving to distinguish the different pairs of wires. This method is still employed by foreign manufacturers in the insulation of the coarser gauges of wire.

In America, however, it was almost immediately replaced by our present method, in which the paper ribbon is wrapped spirally around the wire; the covered wire being afterward run through a bushing ("polisher") in order to bring it to the required diameter.

The first type of machine used for this purpose was necessarily slow, as the supply of paper that was wound on a comparatively small bobbin could not be revolved about the wire at a very high speed. About 1897, however, a much faster machine was developed. In this a revolving disk carries a pad of paper tape upon its face. As the disk and the pad revolve together, the paper is unwound at the same rate of speed, regardless of the size of the pad. The design of this machine has been constantly improved, until at present the paper insulation can be wound around the wire at the rate of 2800 turns a minute.

The lead sheathing operation was, in the beginning, a very tedious and expensive process. At that time the lead pipe was purchased in approximately 200-foot lengths. Four of these usually constituted a cable length, and were laid out straight on the floor to receive the core. In order to start the cable core through the sheath, a ball attached to a cord was forced through the pipe by means of a hand air-pump—something like a bicycle pump. To the cord was attached a rope, by means of which the cable was drawn through.

After the sections had been joined the length of sheathed cable was wound on a drum and placed in an oven. Here, by means of a vacuum, melted paraffin was forced through its entire length until the core was saturated. The finished cable was then rewound on wooden reels ready for shipment.

In 1892 this slow and laborious process was replaced through the efforts of W. R. Patterson of the Western Electric Company. By an ingenious invention known as the "die block" he made it possible to form a continuous lead sheath around the core as it passed through a chamber filled with plastic lead. This process which gave the name "Patterson cable" to the product, is, with some improvements in the die blocks and presses, still employed in forming the sheath.

Philadelphia Division W. RITCHIE, Division Correspondent

Eggs and Telephone Numbers

The Housekeepers' League of Philadelphia went into the retail egg business in earnest about two weeks before Christmas. It established over twenty distributing points in greater Philadelphia where eggs were sold at 24 cents a dozen, while the regular stores were charging from 27 to 45 cents a dozen for those said to be of the same quality. The purpose of this campaign was to break the market and force the wholesalers, and consequently the retailers, down in their price. This was made possible by securing twenty carloads of eggs from an independent source and selling them at cost, or at a little below it.

That the efforts of the League met with a prompt response on the part of Philadelphia housewives is evidenced by the fact that over seven million eggs were disposed of in three days.

The League has approximately 400 members and its president is Mrs. William B. Derr. One Philadelphia paper published Mrs. Derr's telephone number together with a statement that she would receive reports by telephone, at her home, of the progress of the campaign; also that she would be glad to hear from persons having eggs for sale at reasonable prices, or any persons having inquiries or suggestions to make.

It happened, however, rather unfortunately for the Telephone Company, that the number published in the newspaper was not correct, Mrs. Derr's house number being given in conjunction with the proper central office prefix as her telephone number. Things were further complicated by the fact that this number was the telephone number of a Philadelphia physician.

Before ten o'clock in the morning the physician called the North Philadelphia Traffic Supervisor and complained that he had been called more than twenty times since eight o'clock by people who wished to know where they could buy 24-cent eggs, and that he didn't see the joke. It was necessary to have calls for this particular physician specially supervised for the remainder of that day, and until late in the evening, in order to separate requests for eggs from requests for medical attention.

Mrs. Derr, when called by the Traffic Supervisor late in the afternoon, stated that she had been talking on the telephone very nearly every minute of the day. At least 256 busy reports were given on requests for her number that day.

Hospital Memorial Bed

Attention is again called to the fact that employees of The Bell Telephone Company of Pennsylvania and Associated Companies may benefit by the memorial bed at the Pennsylvania Hospital, Eighth and Spruce Streets, Philadelphia. This bed was endowed by gifts of the employees as a memorial to Mr. Theodore Spencer, Vice-President and General Manager, who died January 28, 1906.

Proposed Liberty Bell Trip By E. J. McKinney, Publicity Department

In December, when the young woman arrived in Philadelphia from San Francisco with a mammoth petition, the California newspapers were anxious to report her success. One of them telegraphed to its Washington, D. C., correspondent to come to Philadelphia and suggest a plan



Train View

of a

Roof Sign

Emphasizing the

Telephone

Service of a

Philadelphia Cab

Company

whereby the people of the Quaker City might learn how anxious California is to have the Liberty Bell make the 6000-mile trip in 1915.

Upon his arrival at the Bellevue-Stratford Hotel the newspaper representatives suggested that the reel be properly labeled and paraded through some of the principal streets.

In the hotel suite of the correspondent was a Bell telephone and a directory containing the new classified section of business subscribers. It required but a moment to turn to the yellow pages and note the display advertisement of a progressive showcard writer.

A generous order resulted immediately, and that sign man has been more thoroughly convinced than ever of the value of directory advertising.

A Truck as an Ambulance

In December, the chauffeur of one of our 1½-ton trucks was traveling west on York Street, Philadelphia. At Thirteenth Street he noticed two women standing near a small boy whose head was bleeding profusely from a severe laceration.

Signaled by the women, the chauffeur, Norman H. Yeatts, drove over and was asked where a doctor could be obtained. Our representative mentioned the Women's Homeopathic Hospital at Twentieth Street and Susquehanna Avenue, a little over a mile distant, and offered the services of the truck to take them. This offer was gratefully accepted and shortly after the boy had received surgical attention.

Other Lectures on Safety

Under the auspices of the Metal Workers' Association of Philadelphia, "The Workman's Lesson," a picture play and lecture dealing with accident prevention, was given in Witherspoon Hall on Thursday evening, December 12.

The object of the meeting was to educate those likely to be interested in using ordinary precautions in the prevention of accidents, as well as to demonstrate how easily causes for injury may be removed. Similar lectures have been given in other cities and have been heartily received. An invitation was extended to executive heads, master mechanics, chief engineers, superintendents and foremen to be present. Admission to the lecture was free.

A Display of Initiative

A short time ago the lid of the manhole opposite 4118 Lancaster Avenue, Philadelphia, was found to be cracked. As this casting was of an obsolete size there was no cover in stock to fit; therefore it appeared to be necessary to replace the casting and orders were issued to that effect. Mr. A. McKay of the Construction Division was sent December 17 to do the work. He discovered that the new casting was ten inches deep, while the old one was but seven inches in depth and was set on the "I" beam roof of the manhole. In order to have the top of the casting at grade, it would have been necessary to remove the old casting and the "I" beam roof, to lower the walls of the manhole, and then to replace the roof before the new casting could be set. This would have been a costly job, especially because of the traffic on a street as busy as Lancaster Avenue is at that point.

Instead of proceeding with the work, as ordered, Mr. McKay looked around the neighborhood and found a casting on a small manhole similar to the one to be replaced. To replace this casting would be a much more economical job than that on Lancaster Avenue. Mr. McKay called the office and asked permission to carry out his plan. This request was at once granted and the Company was saved the expense of the construction change on the busy street.

Another Source of Pride

In commenting editorially on the electrical equipment available in Philadelphia the *Inquirer*

"Philadelphia is so accustomed to being called a decadent and corrupt city by outsiders who get their cue very largely from a lot of people who ought to know better, that it is comforting to know this is not only the greatest convention city in the world, but that on the occasion of every national assemblage we are informed the city outranks all others in some particular. Thus it is pleasant to learn that Philadelphia is not only the best electrically lighted city in the world, but that its telephone system outranks all others in size and efficiency. * * * We can find no city with which we should like to exchange equipment or system of administration."





A Reading representative of Reading District. Drexel & Company, bankers, of Philadelphia, Pa., called at the office several days ago to compliment the Traffic department on the excellent manner in which it handled his toll business. He states that he passed 214 toll and long-distance calls in Reading and Philadelphia, selling \$40,-000,000 worth of railroad bonds, ranging from \$25,000 to \$100,000 in denomination.

Recently a Reading subscriber's line showed a 25-volt shunt. Upon inspection a Frankfurter sausage was found lying across the exposed lugs of the subscriber's instrument.

A photograph on this page shows Manager C. E. Eaby, of the Denver & Ephrata Telephone and Telegraph Company, in his Ford runabout.

The Denver & Ephrata Company operates in the eastern portion of Lancaster County, Pennsylvania, connecting with The Bell Telephone Company of Pennsylvania at Reading and Lititz. This company operates an exchange at Ephrata, Pa., having 360 stations connected, and another exchange has recently been opened at Terre Hill,



Manager C. E. Eaby of the Denver & Ephrata Telephone and Telegraph Company

Pa., which serves 100 subscribers. Arrangements are being completed for the opening of a third exchange at Denver, Pa.

The Denver & Ephrata Company was organized in June, 1911, and connected with the Bell System in October, 1911. Since then it has made remarkable gains. Careful management on the part of the officers and directors, the proper construction of pole lines and circuits, and the installation of up-to-date central office equipment, as well as giving subscribers and the public a thoroughly efficient telephone service, have won the approval of business men and other telephone users in their territory.

Manager Eaby is giving close attention to proper construction and maintenance. He has thoroughly organized his operating force, which has made a reputation for prompt and courteous treatment in handling both local and long-distance

Harrisburg District. Below is an excerpt from a letter received from the Harrisburg Star-Inderendent:

Bell Telephone Company of Pennsylvania. Gentlemen:

I wish also to thank you for the expedition with

which you installed the private branch exchange recently placed in our building.

Thanking you again, we remain, Yours very respectfully. The Star-Independent Company.

The Commercial department representative says that the installation mentioned in the above letter is one of the best jobs he has ever known the Plant department to do upon request, that it shows hearty and prompt cooperation. It was just six days from the time the line order was issued until the private branch exchange was installed and working. One day was required to get material from Philadelphia, so that the installation was really completed in five days.

The equipment is of a No. 2 style with three trunks and eight stations. For several days following the installation the newspaper ran an article in the front page explaining its new telephone equipment.

Herewith is a copy of a letter received from the local representative of the International Correspondence School relative to the installation of their telephone service. In order to make this installation, wire had to be run to the third floor of the building in which the office is located.

The Bell Telephone Company of Pennsylvania,

Waynesboro, Penna.
Gentlemen:—We desire to thank and compliment you and your line force for the promptness with which you have this day installed telephone service in our office. We signed the application for service at 2 P.M., and it was just 3.45 P.M. when we had the pleasure of having our first call responded to by friends on a farm between Greencastle and Chambersburg.

Wishing you abundant success, we remain, Respectfully yours, International Correspondence School of Scranton, F. W. Zuch, Manager, C. M. Barr, Local Representative.

A salesman of investments and securities, a subscriber to four-party line residence service at Waynesboro, Pa., who applied for four-party line business service to be installed in his office a few days ago, visited our exchange at the invitation of the Local Manager. After it had been thoroughly explained to him how the telephone wires were brought into the office from underground conduits and distributed over the frame and finally connected into the switchboard, he became very much interested in the details of the plant. When this had been explained he readily agreed that he should have direct line service instead of four-party line service.

A Waynesboro family which moved from one part of the town to another a few days ago concluded that they would do without telephone service because the stores were much more convenient to them at the new location.

The last piece of furniture had hardly been placed in the new house when something was wanted in a hurry and the housewife started to run to the telephone, which, of course, was not there. The result was that an immediate application was made for service at the new location.

Scranton District. The following letter is an unusual "testimonial" of the value of showing the public through our central offices:

The Bell Telephone Company of Penna.,

Scranton, Pa.

Gentlemen:—I was requested by the Directors of the Anthracite Trust Company, after our visit to your plant yesterday, to write you thanking you for the very courteous treatment we received

and for the opportunity of examining into the workings of that modern and most valuable business agent, the telephone. If your subscribers would take the time to visit the plant and observe its workings and the thoughtful foresight evidenced there they would have a higher appreciation of the value of the telephone service. The amazing details and intricacies in the operation of the telephone calls impressed us vastly with the fact that the public, could it but understand the operation, would become patient with the absolutely necessary delays that so rarely occur. Another thing that impressed us greatly was the consideration shown by your Company for the employees. The furnishing of a comfortable rest room, with facilities for preparing lunches, and the generosity of the Company in contributing coffee and milk without charge is certainly abreast of the times in this great business organization of the day. Another thing we observed in the employees throughout the plant was the alert and keenly intelligent manner in which they performed their duties. In the maze of communications which to a layman appear inextricable, the rapidity and ease with which they were disentangled speaks highly for the training and ability of your force. The anticipation of even remote possibilities of failure of some essential agent in the service (by providing a means of supplying during such temporary breakdown from your plant with the enormous expense necessary to provide protection to your subscribers in the enjoyment of your service) was another thing that impressed us. We had among our number, as you know, men engaged in great business enterprises of vast importance and of complex detail. To these came the realization of the apparently perfect conditions with which you have surrounded your service.

We also desire to express our appreciation of the wonderful work done here on the occasion of the recent heavy windstorm which resulted so disastrously to the wires, in the prompt manner in which your force reinstated every branch of the service. To a layman the impossible is performed by the modern public utilities company, of which the telephone seems to be the most useful agent.

Those in the city who are watching with great interest the progress of the city see in its developments a demonstration of growth which must please them. In 1883 I visited your plant on ackawanna Avenue with its very small switchboard and perhaps half a dozen employees. What a contrast presented itself to me yesterday between the two plants as the years have passed.

Our Directors congratulate you upon the excellent service you are rendering in this city and on the growth of the business as evidenced by what we saw yesterday.

Thanking you again in behalf of our party for the courtesy extended to us and the patient explanations given us, we are,

Appreciatively yours, Directors of Anthracite Trust Co. By H. C. Revnolds.

Wilkes-Barre District. Applications for the first multi-party line service from Wellsboro exchange have been secured. This line will open a territory that has been served by a single public telephone. The twelve subscribers were "signed" by Salesman Anstadt.

The Northumberland County Gas & Electric Company's No. 2 private branch exchange with eight stations has been installed under the supervision of C. E. Merkle, Equipment Foreman of the Williamsport District.



Williamsport District

Contractors have started the construction of 2100 additional trench feet of underground work at Sunbury, Pa., to care for some of the recent new business obtained in the east end of the city and that expected shortly.

The Buffalo Valley, a connecting company, serving 761 subscribers throughout the limits of Union County, Pa., moved its Lewisburg central office from the old location on Market Street to the new and recently purchased building on Second Street. The cut-over was made December 3 and was a success in every respect, due largely to the efficient and careful work of Messrs. H. R. Jacobs and Harry Watson, Bell employees, under whose supervision the change was made. A large amount of praise by the public and press was noted and an improvement in both service and receipts has already resulted. The change brings about the unusual situation of having the telephone, telegraph and the city light company's business offices under the same roof. With the new central office equipment completed, the Buffalo Valley Company expects to increase its business within a reasonable time to the extent of from 200 to 400 additional subscribers.

Collection Efficiency Per Cent. of Amount Outstanding to Total Amount **Billed for Current Month** NOVEMBER, 1912.

| PITTSBURGH DIVISION | |
|--|--------------|
| Collection Office | Per Cent. |
| Carrollton O | . 3.2 |
| Warren Pa | . 1.2 |
| Bradford | 6.61. |
| Sictorcyille | .10.7 |
| Scottdale | .18.2 |
| Croonshira | . 10.0 |
| I atrobe | & U. I |
| New Kensington | 22.5 |
| Fast Liverpool | . 23.0 |
| Morgantown | . 23.5 |
| Salem | 24.1 |
| Sharon | . ,25.5 |
| Oil City | 25.6 |
| Cambridge | 20.4 |
| Pittsburgh | 26.5 |
| Corry | 20.1 |
| Franklin | 27.4 |
| I Ihrichsville | 27.4 |
| Steubenville | 27.6 |
| Punxsutawney | 27.6 |
| Fhensburg | 27.7 |
| McKeesport | 27.8 |
| Butler | 28.4 |
| Indiana | 29.6 |
| Marietta | 29.8 |
| | 20.1 |
| Uniontown | |
| Charleroi | 50.5 31.3 |
| Pairmont | 33.2 |
| Rochester, Pa | |
| Clarksburg, W. Va | |
| Wheeling, W. Va | 34.0 |
| Connellsville, Pa | 34.5 |
| Warren, O | 34.8 |
| New Castle, Pa | 35.3 |
| Dubois, Pa | 38.4 |
| Johnstown, Pa | 38.5 |
| Erie, Pa | 42.2 |
| Washington, Pa | 50.8 |
| Bedford, Pa | 51.4 |
| Bedford, Pa Parkersburg, W. Va | 53.2 |
| Greenville, Pa | 59.3 |
| Meadville, Pa | 74.7 |
| 2.2000.110, 2.01111111111111111111111111 | |

HARRISBURG DIVISION

| TIARRISDURG DIVISION | |
|-------------------------|--------------|
| Collection Office | Per Cent. |
| Altoona | . 5.2 |
| Ridgway | . 5.3 |
| Huntingdon | . 5.3 |
| Lancaster | . 5.8 |
| Wellsboro | . 6.1 |
| Carlisle | 7.2 |
| Berwick | 9.7 |
| Bloomsburg | .11.5 |
| Sunbury | . 13.3 |
| Bethlehem | . 15.1 |
| Bellefonte | . 16.3 |
| Williamsport | 16.4 |
| Reading | 17.2 |
| Easton | 17.3 |
| York | 17.7 |
| Allentown | 17.8 |
| Carbondale | 18.5 |
| Wilkes-Barre | 20.0 |
| Clearfield | 20.0 |
| Lebanon | 20.5 |
| Scranton | 20.9 |
| Shamokin | 20.9 |
| Towanda | 21.1 |
| Lewistown | 22.0 |
| Coudersport | |
| Lock Haven | 24.9 |
| Honesdale | $\dots 25.2$ |
| Pittston | 25.4 |
| Waynesboro | 28.5 |
| Hazleton | 28.6 |
| Harrisburg | 29.3 |
| Chambersburg | 29.4 |
| Nanticoke | 30.1 |
| Pottsville | 30.6 |
| Emporium | 57.0 |
| | |
| 、 Philadelphia Division | |
| Germantown | 25.4 |
| Philadelphia | 27.8 |
| Chester | 31.9 |
| | |
| Atlantic Coast Division | |
| | ~ 4 |

| Doylestown |
|----------------|
| Norristown21.4 |
| Dover |
| West Chester |
| Trenton27.0 |
| Wilmington |
| Camden |
| Bridgeton37.3 |
| Atlantic |

The Old-Timer and New-Comer at Lunch

The New-Comer Suffers for Other People's Mistakes

■HE new-comer, hurrying into the lunch room, found the old-timer already at the table, deeply engrossed in the bill-of-fare, says the Western Electric News.

"Well, I seem to be the late one to-day," he remarked.

"Oh, that's all right. Sit down," said the old-

timer. "Something important?"
"Important nothing!" snapped the new-comer. "That boss of mine is about the limit! We got a telegraph order the first thing this morning, and somebody slept on it for three hours, so that it didn't get to me till eleven-thirty. I saw the boss about it, fool that I was, and-nothing would do but clear up the mess before I went to lunch! It was some more of those new sub-sets that the shop's way behind on.

"Still, a telegraph order means a reply by wire the same day. "I know.

But why on earth couldn't the branch house tell the customer in the first place that the shop fell down on the stuff, and the promise couldn't be bettered? I don't see why it's up to me to starve on account of other people's mistakes.

His companion smiled. "Would you tell a customer that?'

"Why not?"

"How much do you suppose 'the shop' means to him?'

"I'd make it mean something. I'd explain that our whole organization is divided up into departments-branch house, general merchandise and manufacturing, and various subdivisions of the manufacturing department; and by that

"And by that time you'd have lost the company a customer. My dear boy," continued the other, "what does an outsider care about our departments? Don't ever make the mistake of talking 'organization' to a customer.'

"But how about a case like this, when the mistake wasn't made in my department at all?"

'Well, suppose you ordered a pound of tea at the grocer's and it wasn't delivered; and suppose, when you complained about it, the grocer said, 'Well, I took the tea down off the shelf, but the clerk forgot to give it to the delivery boy.' Would you consider that a good excuse?'

"That's different-

"It isn't a bit different. Our customers are doing business with the Western Electric Company, not with 'Department So-and-so'; they want

results, not a history of the company."

"But look here," protested the new-comer, "why have I got to be the goat, when somebody

"You've got to be the 'goat,' as you put it, because so long as you're working for the company you represent the company, not just your particular department."

"Oh, this eternal 'company' song and dance makes me tired!" exclaimed his companion. "I work here at Hawthorne all day, not forgetting the time I put in at lunch time talking shop with you, and now they're after me to attend the meetings of the men's club, nights. Where do I come in? I used to have some ambition; I wanted to get somewhere, do something big.

Sure your ambitions are in this line?' "Of course I am," replied the new-comer. "I've always wanted to make some phase of the electrical industry my life work. . . . Oh, I know what you'll say," he continued disgustedly, 'work

all day, think about work all night,' and all that sort of thing. No thanks!" I want to live some of the time.

"Ah, now we're getting down to bed rock," exclaimed the older man. "You talk about your 'life' work' in one breath, and in the next you talk about life as separate from work.'

"Well, can't they be separated?"

"What is any man's real life but his work?"

"How about those who can afford not to work,

"Who make a business of amusing themselves, eh? No, sir, you can't get very far away from work, and you might as well realize it first as last. However, if you have any doubts as to your fitness for this particular line, get out of it, quick. and see what you are fitted to do. But if you're really sure that your future lies here, get in and dig! Work at the telephone business, play at it. think about it, talk about it, eat it, drink it!"

"Whew!" exclaimed his companion. "Son, it's op's way behind on."

The old-timer smiled whimsically.
"Hard luck, old man," laughed the old-timer. really a lot more fun than it sounds."

Digitized by GOGIC

ittsburgh Division~ Z.Z.HUGUS, Division Correspondent

Butler District. The reproduction shows a display which appeared in Campbell's Dry Goods Store, Franklin, Pa., during the week of December 7. A private branch exchange application has been obtained consisting of 2 trunk lines and 8 stations. This is the first store in this territory to use private branch exchange telephone service. The display attracted considerable public attention, and has been the means of a profitable increase in telephone calls.

Quite recently we were in receipt of a check from one of our subscribers at Harmony, Pa., as an advance payment for telephone service to be furnished in the residence of Rev. H. M. Leidy. The telephone was a Christmas gift, to be installed regardless of any protest the subscriber might make. Arrangements were made with the Plant department to do the work on December 24, and there is no doubt that the new subscriber was agreeably surprised when the donor called by telephone and informed him of the gift.

Ene District. In honor of J. B. Kittleberger, Plant Supervisor of the Erie District, the Plant department employees in Bradford recently gave a dinner at the Bay State Hotel. Mr. Kittleberger is soon to leave the service of the Company, and the dinner was served as an expression of regret on the part of the men at his departure.

Mr. Kittleberger was presented with a scarf pin by the Plant employees in the Bradford Sub-District as a token of the esteem in which he is

Several interesting talks were made, an excellent dinner was served, and all present spent an enjoyable evening.

Johnstown District. Recently a woman from East Greensburg, Pa., called at the Greensburg Business Office and signed for telephone service, saying that the night before she had nineteen chickens stolen. While she thought she did not



Franklin, Pa., Dry Goods Store, Butler District (Described above)

particularly need the telephone for other uses, she intended to be prepared in case any more chicken thieves showed up.

A man moving to Bedford called our exchange and inquired if we knew of any vacant houses. The Commercial department employee familiar with that town at once gave him locations of several vacant flats. The stranger was much pleased, and the result was an application for telephone SMITH.

Pittsburgh District. The Pittsburgh Cement Show has just closed. It was so successful and satisfactory that the cement people have decided to make it an annual event in Pittsburgh, as it is in New York and in Chicago. The show was held in the spacious hall of the Pittsburgh Exposition. The first floor was devoted to exhibits of the companies manufacturing and selling cement of all kinds. On the second floor a moving picture exhibit explained the many uses of cement.

The firms who had exhibits were furnished telephone service through a private branch exchange which was installed in the Exposition building. Many of these availed themselves of the opportunity for telephone service. Around the switchboard a neat display was arranged and a large sign was hung above reading "Bell Telephone Service."

The Western Union Company had a telegraph station near the telephone switchboard.

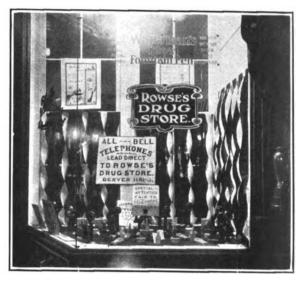
Wheeling District. Manager Bills, at Wheeling, obtained 8 applications in seven hours, with a net revenue of over \$250.

At Steubenville, Salesman Calhoun in five days turned in applications for service from five ministers. Mr. Calhoun sets a good example.

A residence fire occurred at Benwood, W. Va., at four o'clock on the morning of December 7. Our night operator, Miss Minnie Bell, responded to an appeal and notified the fire departments at McMechen and Benwood. Realizing even in the excitement that McMechen was without proper facilities for fire-fighting, she warned the Wheeling Fire Department in time for them to cover the intervening miles and do much effective work with their chemicals. A small stove in a liquor house had caused an explosion which set fire to two adjoining buildings. For hours the fire raged, and but for the quick-witted action of Miss Bell, the loss, which exceeded \$50,000, would have been much greater. In fact the entire town was in danger. Residences and business houses were burned; a 50-pair cable burned for an entire section, together with a tap on one pole, putting approximately 35 subscribers out of service. Although it was very early when the trouble was reported, the Supervisor of Construction started a crew from Wheeling, which arrived on the ground with the necessary material. The fire was burning so fiercely they were unable to commence work. At 9 A.M., when the fire was under control, our crew started work, put in a new messenger cable, cut in the new tap, restrung the drops that were burned off, and all subscribers were O.K.ed and back in service at 3.50 P.M. The only subscribers remaining without service were those whose homes were destroyed.

'Pa, what's a pessimist?" says a local paper. "A man, my son, who firmly believes a telephone operator takes delight in saying 'The line's busy' when, as a matter of fact, it is less trouble for her to make the connection."

This is a month of fires. Our people have done such effective work that it deserves mention. On the night of December 12 a fire destroyed the Walker plant of the American Sewer Pipe Company between East Liverpool and Wellsville, Ohio. There is a section of the C. & P. Railroad lines, the plant on one side, the river on the other, and between the two our trunk lead carrying a 50-pair, 19-gauge trunk cable from East Liverpool to Wellsville. Two full arms of copper circuits also carried toll leads to Toronto, Salinsville, Irondale and points south. The fire originated at 1 A.M. and, on account of the high wind and lack of fire protection, completely gutted the plant. Nothing could be saved. The buildings collapsed, carrying with them our cable, and the railroad track was covered with débris. At 3 A.M. our



A Beaver, Pa., Druggist's Window

Wire Chief was on the scene, but the darkness and obstruction on all sides made it impossible to learn the extent of the damage. At 7 A.M. a crew had cleared the railroad tracks, enabling our men to get near the lead. Two poles were burned and another one broken. Five hundred feet of the 19-gauge trunk cable between East Liverpool and Wellsville had been burned and the bare copper circuits were destroyed. The Wire Chief immediately began to make temporary repairs with the aid of twist wire strung along the ground. and by 8.30 the toll lines were back in service. With the aid of additional material from Wheeling, all service was temporarily repaired and O.K.ed by 11.45. A supply of cable, wire, crossarms, etc., was received from the Western Electric Company by express at 3.30 P.M., an extra crew was brought from Toronto and the work of making permanent repairs begun. At 6 P.M. of the following day all work was completed.

The work of Messrs. E. G. Hilton, East Liverpool Wire Chief, and J. W. Harris, Line Foreman, was highly commendable, and it was entirely due to their skillful organization that the service was temporarily restored within four The weather on this particular day was hours. extremely cold and the work was done along the bank of the Ohio River, with a fifty-mile gale blowing all day. Other public service had not been completely restored on the third day after the fire.

A Parkersburg operator received a call from a man who wanted to talk to the person who

January 7 is an engaged date. Philadelphia Telephone Society and Mr. T. P. Sylvan's subject urge our presence.



bought his cow the day before yesterday. "He lives at Ripley and I don't know his name." He was told that he must give some better address. "Well, but I sold her over 'Long Distance' and I want to talk to the same place." A good memory and some little thinking enabled the operator to locate his party and complete the call. The farmer is probably unaware that anything unusual happened.

The Steubenville Y. M. C. A. used the following as instructions to the boys in a quest for tickets placed at an unknown location in the town. "This afternoon at 5 P.M. a man will be on a street which is found six times on page 15 of the Bell Telephone directory. A Y. M. C. A. button in his coat will identify him, and in exchange for your red slip he will hand you the long-sought tickets." MISS DIEHL.

Our Societies

The Philadelphia Telephone Society

1420 Chestnut Street. January 7, 8 P.M. sharp. Speaker: T. P. Sylvan, Secretary of the Employees' Benefit Fund Committee.

Subject: "Some Phases of the Pension Plan."

The Delaware Telephone Club

The fourth banquet of The Delaware Telephone Club was held at Ainscow's Café, Wilmington, on the evening of December 9. A turkey dinner for which eighteen covers were laid was thoroughly enjoyed by all present.

Mr. E. D. Prince, president of the club, presided as toastmaster, and all the diners responded on subjects concerning their daily work. A feature of the speechmaking was the discussion of the question, "Have We An Obstacle Department?" It was decided afterward that in view of the good showing made by all departments this year there must not be an "Obstacle Department" in our organization, inasmuch there would not have been the cooperation and harmony necessary to bring such pleasing results.

The Diamond State Telephone Society

The Diamond State Telephone Society, an organization founded largely in the interest of the Plant department, but to which all male employees of The Diamond State Telephone Company are eligible, held its first meeting Wednesday, December 11, at 601 Shipley Street, Wilmington, Delaware. The following officers were elected: President, D. C. Hosfeld; Vice-President, J. A. Dockety; Secretary, L. M. Hearn; Treasurer, R. W. E. Way. Meetings will be held the third Thursday in each month. Great enthusiasm is being shown and it is expected the membership will soon reach one hundred.

The Telephone Society of Pittsburgh

Friday, January 3. Jenkins Arcade Building.

Speaker: Mr. J. C. Nowell, General Superintendent of Plant.

Subject: "Accidents."

The Trenton Plant Club

The last meeting of the Trenton Plant Club was held on Thursday, December 12, at 218 E.

Mr. G. O. Heald, Plant Engineer, read a very interesting and instructive paper on "Hazardous Conditions of Outside Plant," which he illustrated with a well selected group of lantern slides.

The subject was commented on by Messrs. J. M. Repplier, C. R. Fairchild, A. B. Detwiler, A. D. Merrick and E. B. Zerman.

The C. & P. Telephone Company

The Telephone Society of Baltimore

Odd Fellows Hall, Saratoga and Cathedral Sts. January 8, 8 P.M.

Speaker: MR. F. H. BETHELL, PRESI-DENT.

Subject: "The New Chesapeake and Potomac.'

An employees' glee club and orchestra will furnish music.

Organization Changes

Effective, January 1, 1913

Mr. S. P. Grace has been appointed Engineer of Outside Plant, vice Mr. F. C. Moody, transferred.

Mr. B. Stryker has been appointed Plant Superintendent of the Pittsburgh Division, vice Mr. S. P. Grace, transferred.
Mr. F. C. Moody has been appointed Plant

Superintendent of the Harrisburg Division, vice Mr. B. Stryker, transferred.

Mr. S. B. Williams has been appointed Plant Supervisor, Erie, Pa., vice Mr. J. B. Kittleberger, resigned.

Mr. J. M. Brown, Jr., has been appointed Cashier of the Philadelphia District, Philadelphia Division, vice Mr. W. W. Henderson, transferred.

Mr. W. R. Myers is appointed Chief Clerk to the Cashier in charge of the Contract Office. Mr. R. E. Patterson remains as Assistant

Cashier in charge of collections.

The following organization has been authorized, affecting the Butler, New Castle, Greensburg and Uniontown Districts of the Pittsburgh Division:

Mr. W. W. Henderson has been appointed District Commercial Superintendent, reporting to the Division Manager.

Mr. J. K. Martin has been appointed District Plant Superintendent, reporting to the Plant Superintendent. Mr. G. A. Geddes has been appointed District

Traffic Superintendent, reporting to the Traffic Superintendent.

The present Commercial, Plant and Traffic men in charge of these districts will report to their respective District Superintendents.

American Telephone and Telegraph Company

Mr. Percy S. Farrar, Traffic Supervising Assistant, New York, has been transferred to the position of Assistant Traffic Chief, Philadelphia. succeeding Mr. Frank S. Twomey, who has been appointed Traffic Chief at Boston, Mass. These changes became effective December 23.

THE COMPANIES' SOCIETIES Name of Society Date of Meeting Place of Meeting Secretary Altoona Plant Class ... The Cross Talk Club Second Tuesday Kugler's, 1412 Chestnut St, Phila., Pa. W. W. Young The Delaware Telephone Club First and Third Mondays 601 Shipley St., Wilmington, Del J. R. Valliant The Diamond State Telephone Society Third Thursday 601 Shipley St., Wilmington, Del L. M. Hearn Wilkes-Barre R. W. Kintzer The Philadelphia Telephone Society First Tuesday...... Griffith Hall (Crozer Bldg.), 1420 Chestnut St. E. C. Wiley The Telephone Society of Harrisburg ... Third Monday every other month Board of Trade Auditorium, 112 Market St... Ernst Ebenbach The Telephone Society of Pittsburgh ... Last Friday ... Jenkins Arcade (Liberty and Fifth Sts.) ... J. H. Moore The Transposition Club ... Third Thursday ... Hotel Henry (Pittsburgh) ... C. E. Malley Trenton Plant Club .

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Burdett Stryker

Plant Superintendent, Pittsburgh

Revision of Accounting Circular No. 1

Effective January 1, 1913

BURDETT STRYKER, the new Plant Superintendent of The Central District & Printing Telegraph Company, was born in Brooklyn, New York, on November 27, 1868.

The Stryker family had long been residents of Brooklyn, having come there from Holland as early as 1660, where they settled on a large farm where Brooklyn Ferry is now located.

When Mr. Stryker was twelve years of age his parents, Francis Burdett and Sarah J. (née Fawcett) Stryker, moved to Washington, D. C., where his mother still resides, his father having died in 1907. In the nation's capital city Mr. Stryker completed his education begun in Brooklyn.

His first experience in the telephone business was during a summer's vacation when he entered the employ of The Chesapeake & Potomac Telephone Company, working on the installation of the first multiple switchboard used in Washington. When Mr. Stryker had completed his studies he became a permanent Bell System employee, starting in the spring of 1888. From then on until 1895 he worked in all the various branches in the Maintenance and Equipment departments, spending considerable time in switchboard engineering problems.

In December, 1895, Mr. Stryker was appointed Assistant Superintendent of Maintenance and Equipment, with headquarters at Baltimore, in charge of the plant in Varyland and a part of West Virginia. He was appointed Superinendent of Maintenance of the Vashington and Baltimore Divisions in 1902, with his headquarters emaining at Baltimore.

In April, 1904, Mr. Stryker was transferred to The Delaware & Atlantic 'elegraph & Telephone Company as Division Plant Superintendent, with leadquarters at Trenton, New Jersey, and in September of the same year he was again transferred to Philadelphia as Division Plant Superintendent of the Pennsylvania Division, covering Bucks, Chester, Delaware and Montgomery Counties, or what is now part of the "Plant Eastern Division." The officer who succeeded him told us that he found the plant in excellent

N order to conform to a uniform system of accounts for telephone companies, prescribed by the Interstate Commerce Commission, it has been found necessary to issue a revision of Accounting Circular No. 1 which became effective as of January 1, 1913. While the changes prescribed by the Interstate Commerce Commission were extremely comprehensive, suggesting changes in the code numbers of some accounts and in the definitions of others, in addition to creating a number of entirely new classifications, the revised circular omits changes where only the code number of the account is affected. Under this arrangement it was necessary to revise twenty-eight out of sixty-one pages of Accounting Circular No. 1, and originate four additional pages.

For the present, accounts will be reported under the old code numbers (unless otherwise specified in the revised sheets) and transferred to the new code numbers by the Accounting department. This arrangement is but temporary, as it is planned to issue a complete new Accounting Circular in the near future.

1500 of the revised circulars, together with a circular letter, explaining the changes embodied in the revision were sent to the field on January 3, 1913.

It is of the utmost importance that these new instructions should be carefully studied in order to insure the proper charging of the accounts.

Below is printed in full the letter which accompanied the revised circular, explaining in detail the changes involved:

Nature of Change

Sheet No. 8.—The definition of Extraordinary Repairs is changed so as to include the replacement of minor parts of continuous structures heretofore charged to Depreciation.

Sheet No. 11.—Change in key to code numbers.

Sheet No. 13.—Change in the definition of common sub-account 12,

(Continued on page 3)

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The Telephone News

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania
The Central District & Printing Telegraph Company
The Delaware & Atlantic Telegraph & Telephone Co.
The Diamond State Telephone Company

F. H. BETHELL, President
L. H. KINNARD, Second Vice-President and General Manager
W. S. PEIRSOL. Sec'y and Treas.
J. S. WILEY, General Auditor
J. H. CROSMAN, Jr., Gen'l Com'l Sup't J. C. NOWFLL, Gen'l Sup't of Plant
W.R. DRIVER, Jr., Gen'l Sup't drafte, N. HAYWARD, Engineer
P. O. COFFIN, Auditor of Receipts
E. C. WILEY, Auditor

Managing Editor, E. H. HAVENS, 17th and Edbert Streets, Philadelphia, to whom all communications should be addressed SUBSCRIPTION PRICE:

To employees of the above Companies - NO CHARGE To employees of OTHER BELL COMPANIES, payable in advance

Vol. IX JANUARY 15, 1913 No. 2

Another Opportunity

THE House Committee of The Spare Pair Society—Philadelphia's second one in point of membership has an excellent program on hand for Thursday evening, January 16.

The first of the two brief talks will be illustrated by views and the second by demonstrations with trained men. "Safety First" and "First Aid to the Injured" are the subjects to be discussed by men of wide experience and absorbing addresses.

The announcement on the last page of this issue not only invites but urges all male employees, who are conveniently located, to attend this meeting. Membership cards will be disregarded at this meetof instruction and help. Encourage the speakers and the House Committee by bringing your friends.

More Than Obtaining Signatures

A THOROUGH explanation by the salesman of the terms of the contract when receiving an application is one of the most important factors in keeping down the number of more or less unnecessary disconnections. Under "unnecessary disconnections" may be included disconnections because of "not sufficient use" and for "non-payment," the two causes which, out of the twenty or more possible causes, are each month charged with the greatest number of disconnections.

Disconnections for non-payment usually result from the subscriber neglecting or refusing to pay his bill in advance or during the month in which the bill was rendered. In how many cases is this attitude on the part of the subscriber due to the fact that our policy of asking payment in advance has never been explained to the subscriber? In how many cases would a brief, intelligent explanation of this policy, at the time the application was received, have made it extremely

improbable that the subscriber would ever refuse to meet the terms of his contract?

Disconnections on account of insufficient use often cover disconnections on account of "a multitude of sins"—misunderstandings, requirements on the part of the Company which did not come to light until after the telephone was installed and the first bill rendered, and various other petty differences.

No man likes to be informed of the conditions of a contract he has signed after he has signed it rather than before. The inclination is to feel that the more disagreeable things have been withheld until he was "securely tied up" and the telephone installed. Disconnections do not directly affect a salesman's rating, but the salesman who believes that the Company's best interest is his best interest is bound to see that getting the prospect's signature isn't doing the whole job.

The Transmitter

THE TELEPHONE NEWS wishes to extend a welcome to its new compatriot in the telephone field, The Transmitter, published in the interests of The Chesapeake & Potomac Telephone Company and associated companies.

The first issue dated January 1, 1913, contains twelve pages of varied interests. Very fittingly, the main article is on a subject, "Telegrams by Telephone," in which all telephone employees are correlated. The reproductions of officers at their desks is an unusual attempt well executed.

With the enlarged territory surrounding the nation's capital, with an unlimited chance for joining this new family and for making them all know each other, there opens a very bright opportunity for the Editor. Mr. Cook's experience and work in Philadelphia have stamped him as a man capable of doing the work creditably.

We too say—"Long live The Transmitter!"

The Telephone "Get-Away"

E'VE all heard the gruff "Hello!" and "Who's this?" of former telephone parlance compared with an unceremonious rush into a man's office and an accompanying brusque inquiry, "Who are you?" Yes, we've read quite a lot on telephone courtesy, and we've profited by it, too, haven't we?

As Bell employees we took up the campaign. Now it's with not a little satisfaction that we can regard modern telephone etiquette and appreciate how we have floored it with the essence of

courtesy, once so conspicuously lacking.

But when your telephone interview is ended, do you "slam the door" as you go out, or do you close it easily and quietly! Haven't you often had your ear-drums fairly pierced, it seemed, by some thoughtless telephone user, who might have learned how to enter but to whom the graceful "get-away" is an unknown art! A very desirable method suggested some time ago is to be sure the other person is finished, then gently pull down the hook with the finger before replacing the receiver. All unnecessary banging is thus eliminated.

We must be the pioneers in telephone politeness, that's sure. Let us then be as courteous about closing a telephone call as we are about its opening. When the conversation is ended, replace the receiver, not with a crash and bang which may reach the other fellow's ear, but lightly,—he may still be there. It's just a step further shead in telephone courtesy and surely one which will be appreciated.

Circulars

'M glad to see," said a business caller, "that your Company is not like the large one that I used to work for."

"In what particular?" said I.

"In a detail that is so important that it stamps some companies as behind the times in everything when they perhaps deserve that criticism only because of certain practices. Our Company had two dozen or more branch offices in as many cities and towns. To each of these offices we used to send not one letter a day but from five to a dozen containing orders of every description. One circular might call attention to letters with postage due, condition of offices or the general failure in obtaining estimates for new business. The circular idea was very much overdone, as you can judge, when you consider that they went out in nearly every mail and in some offices there were indexed volumes of circulars on hand."

"Circulars are good," continued this business man. "They are an absolute necessity in your business as they were in ours, but when issued on every detail of the business and sent out in such hopeless quantities they indicated, I thought, a reliance on orders rather than on the common sense that any man in charge of an office should display. Our 'yellow-backs' were treated as jokes and were sometimes destroyed by the boy who carried the mail from the local post office. It's good to know that the large present-day companies use other methods of jacking up incompetents."

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Revised Accounting Circular No. 1

(Continued from page 1)

excluding the item of "Rent." All rents, except those charged to a clearing account as hereinafter defined, are now charged to Account 331, "Rent Deductions for Telephone Offices."

Sheet No. 14.—The definition of Construction Pole Lines changed to include the cost of first clearing Right-of-Way and of first trimming trees. Also, a change under Depreciation, providing for minor replacements to be charged to Extraordinary Repairs.

Sheet No. 17.—The definition of Repairs—Aerial Cable changed so as to include the cost of trimming trees and clearing and removing obstructions. Same change in Depreciation as shown on page 14. Provides for separate accounts under Exchange and Toll for Repairs and Rearrangements and Changes.

Sheet No. 18.—Repairs to be charged to R3 and RT3 instead of R1 and RT1. The definition to include clearing and removing obstructions. Rearrangements and Changes to be charged to M3 and MT3 instead of M1 and MT1. Same change in Depreciation as shown on page 14.

Sheet Nos. 19, 20 and 21.—Former account Repairs R4, covering repairs to underground plant, is now changed to include only repairs to underground conduit and is to be reported separately for both Exchange and Toll. Rearrangements and Changes of underground plant changed to include only underground conduit, and is to be reported separately both for Exchange and Toll. Same change in Depreciation as shown on page 14.

Sheet No. 22.—Repairs Underground Plant changed to include only repairs to underground cable, and is to reported separately for both Exchange and Toll. The definition of Rearrangements and Changes is changed to include only underground cable and house cable, and is to be reported separately for both Exchange and Toll. Same change in Depreciation as shown on page 14.

Sheet No. 23.—Repairs to Underground Plant changed to include only repairs to underground cable. Same change in Depreciation as provided for on page 14.

Sheet No. 24.—Repairs Underground Plant is changed to include only repairs to submarine cable, and is to be reported separtely for both Exchange and Toll. Rearrangements and Changes changed to include only submarine cable, and is to be reported separately both for Exchange and Toll. Same change in Depreciation as shown on page 14.

Sheet No. 25.—Central Office Furniture and Fixtures is excluded from Account C17, and is to be reported as indicated on page 27-1.

Sheet No. 27-1.—This sheet provides for Exchange Furniture and Fixtures to be reported separately from Central Office Equipment.

Sheet No. 30—Note added to definition of repairs station apparatus, providing for material used in connection with renewal of batteries at subscribers' stations, to be charged to Account 429-17 instead of Account R8. The labor and expense in connection therewith is chargeable to R8 as heretofore.

Sheet No. 34.—Repairs to Aerial Wires (drop wires) to be charged to R3 instead of R1, and Rearrangements and Changes to be charged to M3 instead of M1.

Sheet No. 40.—The first cost of clearing Rights-of-Way—that is, the clearing of surface obstructions, such as trimming trees and removing buildings—is eliminated from the definition of

Construction Right-of-Way, and is now charged to Construction Pole Lines. The repair accounts under right-of-way are arranged so as to show separately repairs aerial and underground for both Exchange and Toll.

Sheet No. 46-1.—This is a new account known as Rent Deductions for Telephone Offices—Code 331.

Sheet Nos. 47 and 48.—This is an entirely new classification for general and miscellaneous expenses covering the Executive, Accounting, Financial and Legal departments, also defining Account 669, "Accidents and Damages," which replaces our present Account 505, "Damage and Compensation."

Sheet Nos. 49 and 50.—Provide separate accounts for general and local commercial administration, also separate accounts for uncollectible operating and non-operating revenues.

Sheet No. 52.—Provision is made for charging the cost of material used in connection with renewing batteries at subscribers' stations to Account 429-17 instead of R-8.

Sheet No. 53.—Account 440-02 is changed so as to exclude rebates allowed to municipalities and other corporations, which is to be included under Account 440-04.

Sheet No. 54.—Various sub-accounts established under Account 450 Insurance, and separation made between operating and non-operating taxes—Account 460.

Sheet No. 55.—"Owned Real Estate Expense" changed to "House Service Expense Owned Buildings."

Sheet No. 56.—"Rented Real Estate Expense" is changed to read "House Service Expense Rented Buildings." The item of rent is eliminated.

Sheet No. 57.—Account 505, "Damage and Compensation," is eliminated and is replaced by Account 669,. "Accidents and Damages," as defined on pages 47 and 48.

Sheet No. 61.—Messenger Service, Account 519, last paragraph is eliminated.

Particular attention is called to the fact that all rents, other than rents chargeable to clearing accounts, are charged to Account 331—"Rent Deductions for Telephone Offices."

In the new definition of departmental expense accounts the word "Rent" was omitted, and in order to avoid repetition it was not thought necessary to call particular attention to each account where the word "Rent" was omitted.

Instructions in connection with Provident Funds (Pensions, Accident Disability Benefits, Sickness Disability Benefits and Life Insurance Benefits) will be furnished later.

In order that the work of the Accounting department may be handled in a uniform manner it is requested that all questions concerning definitions of the new accounts be submitted to this office in writing.

Notice 11970

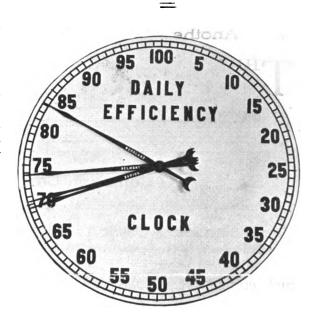
Owing to the shortness in time, it was not possible to do justice to a description of the important work of Mr. S. P. Grace, now Engineer of Outside Plant, and of Mr. F. C. Moody, now Plant Superintendent, Harrisburg. These will both be covered in our next issue

Operating Efficiency Clocks

By Paul Nicholadsé, Traffic Inspector, West Philadelphia and Main Line Districts

An efficiency clock as shown above has been designed by Traffic Supervisor C. G. Tatnall, for use in the four central offices of the West Philadelphia District, including Baring, Belmont, Preston and Woodland.

The clocks are thirty inches in diameter. The dials are divided into "one hundred minutes," in groups of five, and the four central offices are represented by four movable hands of different colors. These hands are set every morning at the efficiency figure for the current week prior to the preceding day.



Efficiency figures are obtained from service observations. The efficiency rating is based on six factors, each of which is assigned a certain number of points as follows:

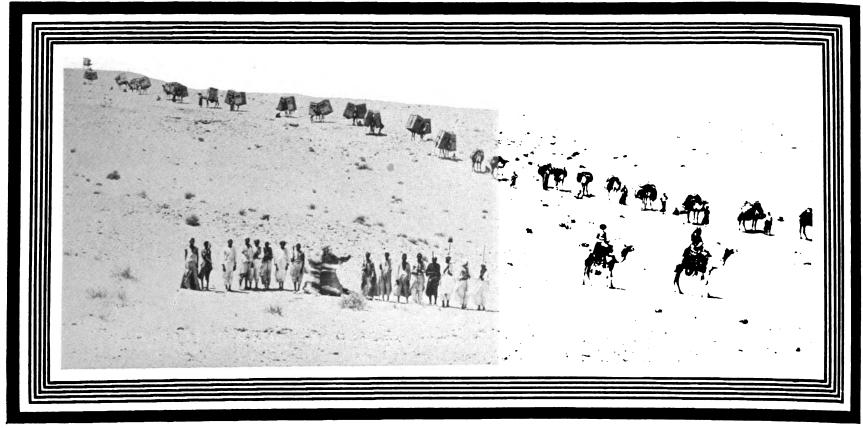
| Errors | 30 | points |
|-----------------------------------|----|--------|
| Answers requiring over 10 seconds | 20 | • " |
| Disconnections requiring over 8 | | |
| seconds | 15 | ** |
| Answers to recall signals | 15 | " |
| Voluntary supervision | 10 | " |
| Operating irregularities | 10 | " |

If the observations disclose a perfect rank in each one of these factors, the rate is 100 per cent. If they should disclose an error of 5 per cent. or more in each factor, the rating is zero. Between the perfect score and the 5 per cent. error a sliding scale has been arranged which provides a rating inversely proportional to the amount of error.

The clock pictured above shows the actual record for the week ending December 6, 1912. The standing of the different central offices shown by the clock is as follows:

| Woodland | | | | | | | | | | | | | 83.1 |
|-----------|--|------|--|--|--|--|--|--|--|--|--|--|------|
| Belmont . | | | | | | | | | | | | | 73.6 |
| Preston | | | | | | | | | | | | | 70.1 |
| Baring | | | | | | | | | | | | | 69.3 |

The comparative efficiency of each office in the district is clearly indicated by these clocks, and a keen interest is displayed by the operating force in the standing of its particular office.



Camels in Caravan Carrying Ostriches Destined for Bloomsburg, Pa.

The Bloomsburg Ostrich Farm An Odd Industry in Our Pennsylvania Territory

By J. S. Brace, Local Manager



town of eight thousand people, in order to be known beyond the confines of its county and acquire a national reputation, must have something remarkable about it. Thus Valley Forge is known to every schoolboy because of its historical associations. Hot Springs acquired its reputation through the medicinal properties of its waters. Bloomsburg, no exception to the rule, has leaped into fame because here is located the only

ostrich farm in a Northern latitude in America. The president of the company, Mr. W. H. Hile, a noted traveler, had observed that while the ostrich is native to arid and tropical countries, specimens kept in menageries in cold countries were healthy and produced much more luxuriant and beautiful feathers than those living in tropical countries. So the idea was born,—an ostrich farm in a land where the winters were cold enough so that old Mother Nature would come to the rescue with more and heavier feathers. For, listen, you operators who wear plumes on your hats, feathers were what this pioneer wanted. Farms and flocks of ostriches were only incidents. What he really had in mind were those new hats you and others are going to buy. So into the heart of Africa he went to the betterment of Bloomsburg.

It was no small job, that of capturing wild ostriches. The ostrich has no visible means of defense. It can neither bite nor tear nor scratch. The only means of attack the ostrich knows is to kick. Our worst subscriber isn't "in it" with him;

he can kick oftener and harder than any other variety of kicking kicker. It is almost impossible to capture an old ostrich. It is the young birds that are caught unawares—three men being required to capture one ostrich.

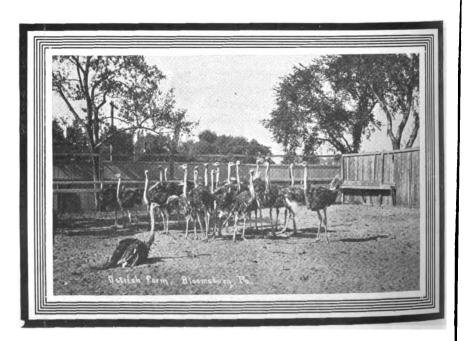
At last a cargo of young ostriches was secured and lashed to the backs of camels. The caravan started on its long journey across the desert on its way to the coast—and Bloomsburg. It takes a good imagination to picture the enormous trouble necessary to capture and carry this odd bird from its desert home to beautiful Bloomsburg. Long days and nights, and the constant fear of accident, either to bird or to caravan, is the price the hunter pays for his capture; thirst, heat and the dismal prospect of sandy wastes; the anxiety of reaching home and establishing his cargo in safe quarters, not to mention Arabs that wander about the desert day and night, usually in search of plunder, to whom the white man

usually means prey. All these enter into the task of making an ostrich farm. But there is an end to everything, even a trip across the desert. The journey was safely completed, the birds placed in vessels and brought to New York, and so on to Bloomsburg, where they made a most spectacular entry and trip through town on their way to the farm.

A Few Facts about the Ostrich

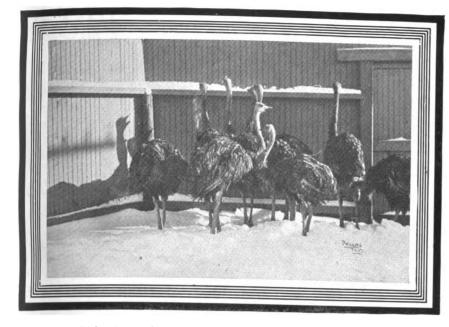
The ostrich is one of the oddest-appearing animals existing to-day. In nature he is part bird and part other animal. His long, slender neck is as elastic as a rubber hose. His flat, triangle-shaped head, his beak, his large, lustrous eyes, and his oddly shaped body set on long, slender legs, all conspire to give him an uncanny appearance. He walks with a peculiar spring, not quite a hop, but with a hoist of his leg that no one can imitate, nor has anyone tried it. He has no imitators in the

Summer View at Ostrich Farm



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Birds Six Months Old

Eating Snow

Thermometer Registered
14 Degrees Below Zero
When Photograph
Was Taken
January 13, 1912

whole animal kingdom. No other bird resembles him nor wants to. Coming to us from historic periods of many years ago, he, the snake, the rhinoceros and a few others have survived the cataclysms of nature and abide unto this day.

Mr. Hile made a second trip to Africa, and on this journey entered the Blue Nile country. Here, at the headwaters of the Father of Rivers, this American explorer captured a troop of Blue Nile ostriches which are regarded as the finest kind, or the aristocrats among the ostriches on account of their plumage.

The purpose of his journeys was to stock his farm more completely and to breed ostriches here in the Northern climate. The ostrich matures slowly. He lives for a hundred years, and then perhaps fifty years more for good measure. The wing of the ostrich produces some two hundred feathers, and these feathers sell for from fifty cents each to fifty dollars. Each bird is worth a thousand dollars in six months, and after that no birds are for sale. Every nine months the feathers are ready to be plucked, and the task of plucking ostrich feathers offers the keepers and caretakers a month's work or sport, whichever you care to call it. The ostrich must be skillfully caught, held in a device that prevents its kicking, and, being securely fastened, his plumage is purloined and the feathers cured, dved and variously treated as fashion and woman's whim

Breeding Ostriches

They have not yet hatched any birds on this farm, inasmuch as the animals are all young. The ostrich breeds quickly when started, but it must be over three years old before the egg is fertile. The old scientists used to tell us in our geographies that the ostrich lays an egg in the sand and then lets the sun do the rest, and so they do in Africa. But modern science improves on this plan and introduces an incubator. A specially built machine has been contrived to hatch the eggs. Under normal conditions an ostrich will lay as many as a hundred and twenty eggs a year. In their native sphere the hen ostrich lays her eggs in a hole scooped out by the wing of the male bird. She sits on the egg during the daytime, and the male relieves her for the night shift. They keep this up for forty-two days, and then assist the young chick to come out of his shell. The shell is onesixteenth of an inch in thickness. The egg weighs about four pounds, and if made into an omelet it could furnish thirty people each a respectable portion. Thus an ostrich egg is equivalent to two and one-half dozen chicken eggs, no matter what price fresh eggs bring in the market.

Ostriches have been hatched in this country by incubator. In Arizona and in Florida the incubator has relieved the male and female bird of the job. The birds hatched prove to be as hardy as those brought forth by the older and natural pro-

cess. This coming spring they will set their first hatch at the African Ostrich Farm. Toward the end of the incubating period three shifts of men will be in constant attendance to break the shell and assist the young chick's entrance to its feathery career.

The farm is located about two miles from Bloomsburg, on the Espy Road near the Susquehanna River. Here the company owns 131 acres acres of fertile land in one of the most picturesque locations in beautiful Columbia County. A portion of this land is enclosed with a high board fence for the accommodation of the ostriches. This enclosure is then subdivided into smaller pens, each pen accommodating two females and one male. The remaining acres are devoted to general farming and the raising of thoroughbred Guernsey cattle. The farm products are all used at home, the birds consuming the same kind of rations as the Guernseys.

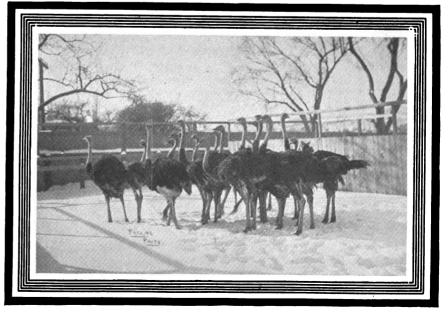
Each yard is supplied with running water, for an ostrich drinks four quarts of water daily and is strictly on the "water wagon." They are fed twice a day on a diet consisting of cut grass, corn or forage of any kind, and a balanced ration consisting of bran, middlings and cut bone. Six pounds of feed are assigned to each, for which they are very grateful. They are economical feeders and leave not a crumb behind; in fact, they would polish their plates and ask for more if permitted to do so.

In the run or yard on this pioneer African Ostrich Farm the ground on which the birds promenade is overlaid with sand, to prevent them from stubbing their toes. This is the one danger to be feared, the breaking of a leg. All efforts are made to guard against this accident. For they have no other common misfortune. A flea, that cannot be kicked off, lodges behind the wings and insect powder does the rest. Here in this airy yard the bird thrives and prospers. The caretakers, however, notice that the birds longest resident in the cold climate begin to take on more plumage. This is Nature's way to protect it from danger and adapt it to the elements of environment. Odd as it may seem and without attempting to wound the feelings of anyone, let it be known that in this age of suffragettes the male bird has the rarest and finest feathers. There are other male birds in the feathery kingdom that boast finer plumage than the female. So, even if the male has to divide his voting

— (Continued on page 9)



Ostriches in Winter



Snow Has No Terrors for These Tropical Birds



THE BELL TELEPHONE

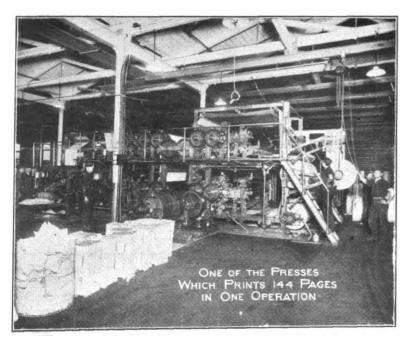
THE printing of our largest telephone directory—that for Philadelphia and vicinity is a problem that must be met three times each year. We have previously described this important work in The Telephone News but not since it has been done by the present printers—The Jersey City Printing Company, 37 Montgomery Street, Jersey City, N. J. This plant is so organized that special attention

This plant is so organized that special attention may be given to the handling of telephone directory work. The positive demand for accuracy, the necessity for speed and the extreme regularity with which all mechanical difficulties and problems must be overcome are quite generally recognized by all of us.

For Philadelphia and vicinity there are required from 185,000 to 215,000 copies, approximately,

each issue, and they must be delivered with as great speed as that of the printing work proper. The first copies are now turned out bound and ready for use within twelve working days after the receipt of "copy" from the Traffic department. In the mantime the printers are working large "shifts" of men and women night and day. Our next issue for use during the spring months closed January 10, and the first copies will be ready for distribution twelve working days after that date. Ten thousand copies will then be shipped and distributed to our subscribers during each working day after shipment begins.

Some of the very interesting details of the printing work are here described by illustrations in a way that indicates the great size of the recurring problem. The classified pages in yellow



2



3



4



5



DIRECTORY PRINTING

added difficulties that could have been handled only by those familiar with printing of this character. However, it was met easily and well by this group of well trained men and women.

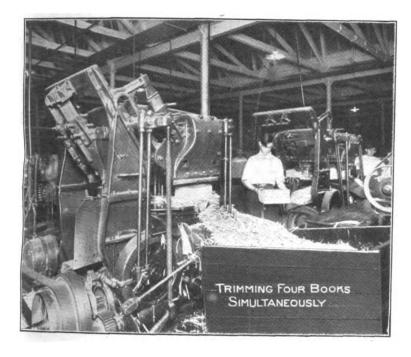
this group of well trained men and women.

Nothing that speed can accomplish is disregarded by these printers. Their contract with our Company alone would stagger many firms in that business. But they handle other companies' directories, including those of the New York Telephone Company. One small detail of speed work is shown in the punching and looping illustration. Here the machines in the background punch the holes and the girls at the tables loop and tie the string found in each directory. The girl in the foreground—the most expert at this work—averages 4000 books a day!

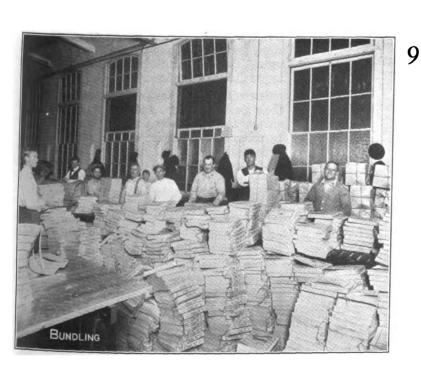


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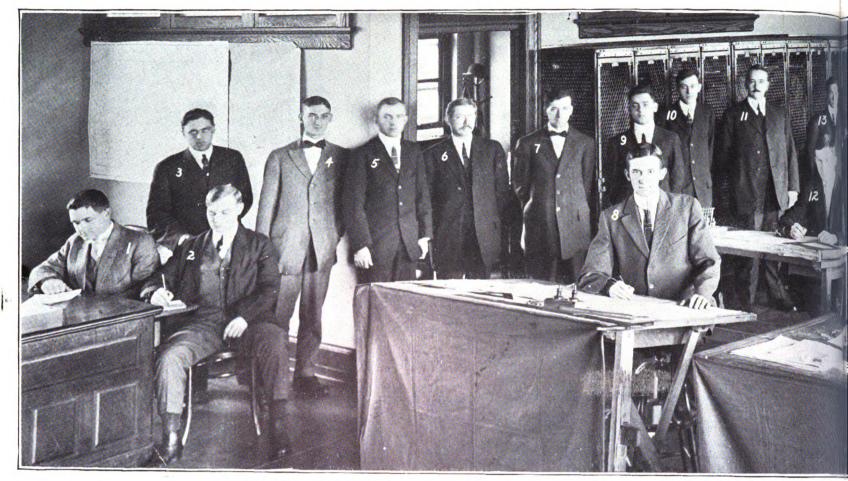












Harrisburg Plant Department Employees in the Office of Mr. B. Stryker, h

1. R. C. Glancy 2. C. A. Aughinbaugh 3. R. W. Catanach 4. E. W. Whited 5. A. S. Schultz

6. C. Reutlinger
7. C. B. Bishop
8. H. S. Bingaman
9. C. P. Rapp
10. E. Ebenbach

1. B. Stryker 2. C. L. Hoke 3. R. C. Black 4. H. E. Smith 5. E. Kilhafner 16. W. A. Kershner 17. E. C. Johnson 18. S. M. Fetterhoff 19. M. W. Davis 20. B. S. Hoverter 21. W. A. Gulbrandsen

Burdett Stryker

Plant Superintendent, Pittsburgh

(Continued from page 1)

condition, except that the men composing the organization appeared to be like a family that had lost its father.

Mr. Stryker became in March, 1908, Division Plant Superintendent of the Reading Division of The Bell Telephone Company of Pennsylvania. In December of this same year when the Reading and Harrisburg Divisions were merged, Mr. Stryker was given charge of both territories and his office was removed to Harrisburg. He remained in this position until December 31, 1912, during which time the Scranton Division was also merged into the Harrisburg Division.

On January 1, 1913, he was appointed to his present position as Plant Superintendent of The Central District & Printing Telegraph Company, with headquarters at Pittsburgh.

Mr. Stryker has seen some remarkable development in the telephone business. When he first entered the employ of the Chesapeake & Potomac in 1888, there were in service 1600 grounded circuit stations in the city of Washington. This was considered at that time good development. In 1895, when he went to Baltimore, there were 1800 grounded circuit stations and 600 metallic circuit stations in service there. At that time the securing of an application for metallic circuit stations was more or less of an event, and when 600 of these stations had been obtained it was considered of sufficient importance to warrant a banquet

being given by the Assistant General Manager to the men of the Company.

When Mr. Stryker went with The Delaware & Atlantic Telegraph & Telephone Company, station development work had just been taken up on a large scale. There were then in service about 5500 stations, not including the city of Wilmington. In three and a half years applications had been obtained and plant provided for 20,500 new stations, making a total of 26,000 stations, and providing for towns where there had before been very slight telephone development. For instance: in 1904 Coatesville had some 76 stations, and at the time Mr. Stryker left the Delaware & Atlantic this had been increased to 1400 stations. Phænixville had been increased from 45 to 1200 stations, and Wilmington from 3600 to 8200 stations,-all this in scarcely more than a year and a half. During the four years in which Mr. Stryker was in charge of the Harrisburg Division it was necessary to install plant to take care of the growth of approximately 40,000 stations.

Mr. Stryker was in Baltimore in February, 1904, at the time of the great Baltimore fire, when the St. Paul central office was completely destroyed and the service over the trunk cable plant to the other central offices interrupted. By good fortune two new central offices had been cut into service the night before the fire, taking a large number of stations away from the St. Paul area. Concerning this Mr. Stryker said: "The work of the Baltimore men in restoring service with those subscribers who were in position to receive it, the opening of a new central office called 'South,' and the enlargement of Mt. Vernon and Gilmore offices on short notice were performances that

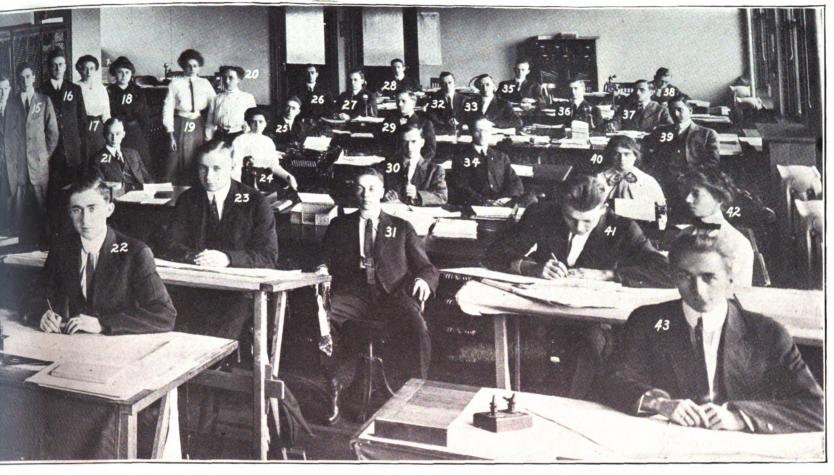
have probably never been surpassed in telephone history. The entire switchboard for the South Office was sent by express from Chicago and the installation made within a few days after its arrival."

Referring to the work during the Baltimore fire, we have obtained from another source this information:

At this critical time the public naturally had urgent need for our service, and while every central office in the city was carrying peak loads the St. Paul office—in the heart of the doomed district—was ablaze with signals of callers. These were largely calls within the same central office area. The condition of cables made many others impossible of completion.

It took courage for our operators to remain at their positions then, and still more of it as the smoke from near-by burning buildings became troublesome. In spite of the natural desire to seek positions of safety away from it all, they bravely remained on duty. As the smoke became more noticeable and the demands of users increased, our employees in all departments did their best to aid. The Traffic employees only were handling the calls, but there were countless other duties which, in emergency, had to be done promptly and with cool decision.

One of our Plant officers was especially deserving of credit for good judgment and remarkable presence of mind. His actions served as a stimulus to all of those with whom he came in contact. Inasmuch as his Company stood to lose many thousands of dollars through the disaster, it was all the more important that he decide wisely



Superintendent, Formerly Harrisburg Division, Now Pittsburgh Division

22. W. G. Fogelsonger 23. A. Gulbrandsen 24. S. E. Beck 25. W. H. Hohn 26. G. W. Roberts 27. E. Shirk

28. J. L. Rupp 29 G. O. Walborn 30. C. C. Holland 31. R. C. Frantz 32. R. S. Caton 33. L. P. Jenkins

W. W. Brown S. E. Keil H. W. Stewart

and in ways that later reviews would consider

When the conditions surrounding the building became still more threatening so that they interfered with the traffic and it was decided that no further service could be rendered, our officer directed that the tarpaulin covers of the switchboards be pulled down and that all employees file out quietly and in order. "That officer," said Mr. U. N. Bethell some time ago before the Philadel-phia Telephone Society, "was Burdett Stryker!"

Mr. Stryker has to his credit the record of twenty-five years of service, during eighteen of which he has been a Superintendent. He is therefore eligible to membership as a Telephone Pioneer of America. Notwithstanding these years of service Mr. Stryker has served under a very small number of officers. In the Chesapeake & Potomac as Assistant Superintendent of Equipment and Maintenance, Mr. Stryker reported for fourteen years to the late Mr. Joseph E. Crandall, and as Superintendent of Maintenanee he later had the pleasure of reporting directly to Mr. U. N. Bethell, then General Manager of this Company. In more recent years he has reported to Mr. P. L. Spalding, now President of The New England Telephone and Telegraph Company, and to Mr. J. C. Nowell, our General Superintendent of Plant.

Mr. Stryker has a host of friends in the telephone business and has spoken before telephone societies at Washington, Baltimore, Philadelphia, Harrisburg and Scranton. Everywhere, his own men and those of other departments have a kindly feeling for him. He has an educational manner

of directing that makes him one of the best organizers in the Company's employ. Withal, however, Mr. Stryker is extremely unassuming. He is characterized by one of our officers as having a personal interest in all of his men. In other ways also his kindly feeling and direct methods have accomplished remarkable ends.

The Bloomsburg Ostrich Farm

(Continued from page 5)

privilege, he can find consolation in being the king when he arrives at the feather market.

The Founding of an Important Industry

The plant that has been established here in the central part of this state is the beginning of an industry that will eventually become of great importance. It is the crowning achievement of a far-seeing and brave man, one who took risks and put all his future on a big stake to win or lose. Mr. Hile has not lost. He has tried a new thing and has the proofs at hand to show that his judgment was right and that he can habitate the ostrich to Northern climate. Last winter the ostrich gamboled in snow and came through the terrible ordeal without the loss of a single bird. The ostriches imported have grown to natural proportions and are not stunted or dwarfed, as it was feared might prove to be the case, and those installed here are growing finer and more abundant feathers. That the climate of Pennsylvania agrees with them and that the care taken

with them is beneficial is shown in the productivity of their eggs. Unlike the chicken, the ostrich has no compunction in squatting down in the yard and laying her egg. The hen ostrich makes no cackle nor startles the yard with her noise. She is a silent bird unless aroused, and then the hoot or cry of the bird can be heard near and far. The sound is a cross between a lion's roar and a factory whistle and, heard in the dark, makes a man feel for his gun and aim straight. The bird never becomes tame in the accepted sense of the word. It has no affection for man like a dog and submits to domestication only through force of circumstances. No one can make a pet of an ostrich, because the two required to make a bargain are wanting on the part of the ostrich. The ostrich will not agree to form any happy family reunion. It is a remnant of another age, a survival of a period beyond the memory of man. The only value he has in the present age is purely decorative—he adorns a woman's hat. when one sees the marvelous willow plumes on exhibit in the salesrooms of the African Ostrich Farm in Bloomsburg, even the most callous henpecked husband will confess that the bird that can produce such beautiful ornaments for a woman's headgear is worth while.

Of course it is understood that every industry must have a beginning. When the Bloomsburg Ostrich Farm has had time to make greater progress it will require a large telephone equipment to dispose of its product. However, four main and two extension stations—all of them "Bell" serve the officers of the farm now. Mr. Hile, the president, lately told our Local Manager that Bloomsburg has the best telephone service of any city of his acquaintance.

Improved Plant Accounting Methods

Labor Reports

In the article "Plant Accounting Methods," published in the November 15 issue of The Telephone News, the method of tabulating the cards was described as follows:

"The cards are placed in the tabulating machine, and as they pass through, one by one, a series or battery of needles, controlled by spring tension, pass through the holes which have been punched in the cards and the electrical contact secured operates the counting mechanism. Only the cards for one account are placed in the machine at the same time. After all cards have passed through, the machine stops automatically. The operator secures the totals from the dials of the counters, records the results on the forms provided for the purpose, clears the totals from the counters, and inserts the next lot of cards to be tabulated."

It will be noted that, by this method, the operator records the totals, clears them from the counters, and inserts the next lot of cards to be tabulated while the machine remains idle. A recent test instituted to ascertain the percentage of this idle time to the total time required to tabulate the cards resulted in the following:

Total time required to tabulate the

cards which were selected.......... 60 minutes Time machine was actually running. 10 minutes Time machine was idle........... 50 minutes

In other words, it was apparent that we were getting only about 17 per cent. efficiency from our tabulating machines.

As a means of increasing the efficiency of these machines a practical test of a device known as the "stop card" was made in tabulating the Philadelphia Division Labor Report for the month of November. The result was a saving of 11½ hours in the time for tabulating the report over the time required to tabulate the same report for the month of October. The actual figures are as follows:

Time for tabulating October report...14 hours Time for tabulating November report.2½ hours

Saving in time......11½ hours

The "stop card" is of the same dimensions as the other cards used in connection with the Hollerith System. It is designed in such a manner that when it passes through the machine, the machine stops automatically.

As the cards were sorted and filed, during the month of November, the "stop cards" were placed as separators between the cards for the various accounts. As soon as all the cards for Philadelphia Division labor had been punched, checked, sorted and filed the accounts to be tabulated were entered on the forms on which the totals were to be recorded.

Following this method, instead of placing only the cards for one account in the tabulating machine at one time, a greater number of cards, representing several accounts in groups separated by "stop cards," were placed in the holder. As soon as the cards for the first account had passed through the machine and the totals had been registered on the "counters," the "stop cards" which separated the cards for the first account from the cards for the second stopped the machine. The operator recorded the result on the forms provided, opposite the proper account, cleared the totals from the "counters," and immediately started the machine tabulating the totals of the second account. The operation for the second account was the same as that for the first, and so on until all the cards had been tabulated.

Material Reports

The cards for Material Reports were tabulated in the same manner as those for Labor Reports. The use of "stop cards" increased the efficiency of the tabulating machines in tabulating the items of material to the same extent as in the case of tabulating labor.

After the material had been tabulated by accounts it was necessary to price each item of material and extend and total the material summary sheets before the summary of the money value of material chargeable to the various accounts could be compiled and forwarded to the Auditor.

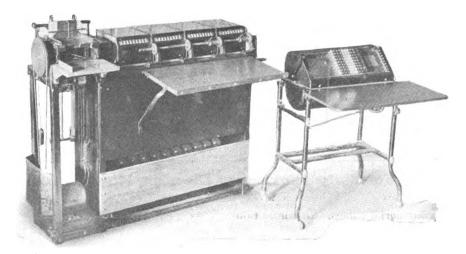
As a means of reducing the time required, at the end of the month, in compiling this summary, the prices of the various items of material are entered on the material summary sheets before the sheets are arranged for tabulating.

During the month of December a test was made with a view to reducing the time required to com-

item on the summary sheets. The tabulating machine operator then cleared the total from the "counter" and started the machine to totaling the next item of material.

While the cards for the second item of material were being totaled by the tabulating machine, the Ensign machine operator multiplied the quantity obtained for the first item by the price shown opposite that item on the summary sheet, entered the result of the multiplication on the summary sheet, cleared the total from his machine and was ready to proceed with the same operation for the second item of material by the time the total of that item had been obtained on the tabulating machine. The operation for the second item of material was the same as that for the first, and so on until all the items of material had been tabulated and multiplied.

The time required for tabulating and multiplying the items of material selected for the above test was 28 minutes. For the purpose of com-



Tabulating and Ensign Computing Machines

pile the material summary reports after the items of material had been tabulated. In this test the tabulating machine and the Ensign calculating machine were used in connection with each other. The cards to be tabulated were placed in the holder of the tabulating machine, while the sheets on which the totals of the items of material were to be recorded were given to the Ensign machine operator. As soon as the tabulating machine stopped, after the cards for the first item of material had been totaled, the Ensign machine operator posted the total as shown on the "counter" of the tabulating machine, opposite the proper

parison, the same items of material were tabulated and then multiplied after all the items had been tabulated, with the following result:

Time required for tabulating...... 20 minutes Time required for multiplying..... 25 minutes

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| 3329 | | | | | - | | <u></u> | | - | | | 1 | | 4 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 'n | 4 | 4 | 4 | 4 | 4 | 4 | 8 |
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Stop Card



Atlantic District. The Reid-Paiste Hardware Company of Ocean City, N. J., is making good use of three of the cuts shown in our Cut Booking let in newspaper advertising. This company calls due itself the Telephone Store and uses in its advertising the large five-inch cut of the desk telephone and two of the cuts of persons telephoning to good illustrate the telephoning of an order. They are printed in overtone style. The cuts are very light some and in a color other than that of the typewriter late ribbon.

Bridgeton Sub-District. While doing superseding work in Salem, N. J., our salesman interviewed a subscriber who had on file a duplicate contract dated April 1, 1890. Attached to it was a letterhead form used at that time. He also had duplicate contracts of changes made since that date.

A new pole line is being built on Grant Avenue, Vineland, to take care of additional subscribers at South Vineland. This is an Italian settlement heretofore not receiving telephone service.

One of the trunk lines between Woodbury and Salem is being constructed.

LORE.

Camden District. In Camden during the last four months about 60 poles have been reset, new strand placed, and old marlin clips replaced with metal rings on four aerial cables. In connection with this work additional terminals were placed and all drop wires standardized, old cross-arms and aerial wires removed, thereby cleaning up several hazardous conditions and placing the plant in first-class shape.

The following letter, which is self-explanatory, was received at our Woodbury office a few days 1 ago:

Board of Education, Woodbury, N. J.

The Delaware & Atlantic Telephone Co.,

Woodbury, N. J.

Gentlemen:—The following action was taken by the Woodbury Board of Education at its meeting held last evening:

In recognition of the courtesy of The Bell Telephone Company, which through its local officers and men gratuitously erected the new flagpole at the Walnut Street School, the Board passed the following resolutions:

Resolved, That the Woodbury Board of Education thank The Bell Telephone Company and its representatives who had part in the work for erecting the flagpole at the Walnut Street School on the afternoon of December sixteenth, and

Resolved, That this resolution be preserved in our minutes and that the Secretary be instructed to send a copy of it to the proper representative of The Bell Telephone Company.

By order of the Board of Education,

T. E. Parker, Secretary. WRIGGINS.

West Chester District. An unusual piece of trouble was located by one of the troublemen in Coatesville, Pa., recently. The bells were reported out of order; the man went in to the telephone and found a chicken-bone, known as the "wishbone," in between the bells. A young lady told the man that the bone was

hung on the telephone with a wish for a friend when he called. She had no idea that it would put the telephone out of service.

GREEN FIELD.

Wilmington District. On Tuesday, December 17, at 9.35 A. M., all of the Philadelphia-Wilmington and Wilmington-Dover trunks were reported out of order. On account of the fact that there were no good wires it was impossible to make bridge tests. From other tests and investigations the trouble was located between Middletown and Wrangle Hill. Men were immediately started from Middletown and Wilmington and at 11.35 three of the trunks were O.K.ed. By 12.25 all of the trunks were working. The break was caused by a tree falling across our line north of St. Georges, which is about fifteen miles south of Wilmington. At this point we have twelve physical trunks, four phantoms and one subscribers' circuit. CHAMBERS.

Associated Companies Purchased

All the plant, rights, property, obligations, etc., of (1) the North East Independent Telephone Company in the County of Erie, State of Pennsylvania, (2) the Brokenstraw and Stillwater Telephone and Telegraph Company in the Counties of Warren, Crawford, Venango and Erie, State of Pennsylvania, and (3) the Sheffield Telephone Company in the Counties of Warren, Forest, Elk, Jefferson, McKean, Clarion and Venango, State of Pennsylvania, were sold to The Bell Telephone Company of Pennsylvania. The sale of the North East Independent Telephone Company, the Brokenstraw and Stillwater Telephone and Telegraph Company and the Sheffield Telephone Company was ratified by the stockholders of these companies respectively at meetings held December 11, 1912, December 10, 1912, and December 10, 1912. The purchase of these companies was ratified by the stockholders of The Bell Telephone Company of Pennsylvania at a meeting held December 19, 1912.

This sale was consummated by a deed dated December 23, 1912, and on and after that date the plant of the former companies,—the North East Independent Telephone Company, the Brokenstraw and Stillwater Telephone and Telegraph Company and the Sheffield Telephone Company.—in the State of Pennsylvania, will be operated by The Bell Telephone Company of Pennsylvania.

The Telephone Spreads Christmas Cheer

A Bell employee had occasion on Christmas Day to call upon a young woman who, because she was convalescing from a serious operation, was obliged to spend her Christmas in the hospital. She was in the best of spirits and getting well most rapidly considering the seriousness of the operation which she had undergone little more than a week before. Everything possible had been done for her happiness: a Christmas tree trimmed and the room crowded with candy, flowers, and mysterious ribbon-tied parcels. This girl was in a Philadelphia hospital, 350 miles from her own home, and still her mother and aunt were there to share Christmas as they had been to share the pain of the operation and the delight in the speedy recovery. And the husband of the girl-they had been married but three months before—had come 350 miles that they might eat their Christmas dinner together and that he might share with her the pleasure of opening those mysterious packages. And yet there was the



A Blind
Operator Who
Serves Well at
Pennsburg, Pa.,
Norristown District

Male telephone operators are more or less of a rarity and have accordingly received considerable individual publicity in The Telephone News. Most of them seem to be of interest simply from the fact that they are operators. The Rev. E. S. Shelly, of Pennsburg, Pa., is no exception to this rule. He is, so far as we know, the only telephone operator who is also a clergyman. Not only that, but because his eyesight is so poor that he can see almost nothing, he is sometimes familiarly called the "blind preacher." He is extremely well liked, in Pennsburg, both as an operator and as a clergyman, and having acted for a long time as supply pastor, he just a few days ago accepted a call to an Upper Milford, Pa., church. Our Pennsburg exchange is located in his home, and much of our popularity in this town is due to his kindly disposition and efficient operating.

least bit of regret. It was not the first Christmas together as these two had planned it. There was no big, jolly family dinner. Many friendly faces were lacking which would have been present to add to the good cheer had they been at home.

This Bell employee had hardly entered the con-

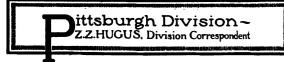
This Bell employee had hardly entered the convalescent's room and wished her "Merry Christmas" when the telephone bell rang and the young lady's father, who had been unable to leave his business long enough to take that 700-mile trip, was wishing her a Merry Christmas over 350 miles of prosaic copper wire, and rejoicing with her that gray-bearded Santa had brought her health and good spirits as well as flowers and candy. Where was he,—at the home town, all alone, about to eat his Christmas dinner? . . .

"At Aunt Belle's? At six o'clock? Oh! I am so glad they invited you, and I am so glad you called me up. Merry, merry Christmas, and your present is beautiful."

The sadness of those missing faces began to disappear. A twentieth century wonder had wiped out a barrier of 350 miles to bring a father's holiday greeting to a hospital-shut-in daughter. Those words which first flashed over a telegraph wire: "What hath God wrought!" came instantly into the mind of the caller and he was thankful that the Company which employed him was something more than "commercial,"—that it could make people happier on this day when everyone should rejoice.

There was various conversation about things of mutual interest, and as the caller rose to go the telephone bell rang again and the husband's father, the same distance away, was wishing them both the jolliest kind of a Christmas and rejoicing with them that the girl could walk a few steps and sit up in a real chair at a real table for her Christmas dinner. The caller went away rejoicing too that the telephone had absorbed the Christmas spirit so successfully, had set aside this day for flashing messages of good cheer.

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Erie District. Miss Janet Seymour, private branch exchange operator at the Erie works of the General Electric Company, is an enthusiastic Bell booster.

Our Company recently arranged to furnish a chair for the operator at this private branch exchange, connected with which are 79 stations, and the chair was delivered Thursday morning, December 26. On the morning of the 27th we received the following letter from Miss Seymour:

Erie, Pa., December 26, 1912.

The Bell Telephone Co.,

Dear Friends:-Old Santa Claus walked into my office to-day, bringing me a very nice chair, and when I started to say a few words of thanks he told me to thank The Bell Telephone Company.

This is very much appreciated by me, and I hope the coming year will be a pleasanter and more agreeable one because of the comfort I can enjoy on this nice chair while at work.

Wishing you a prosperous and bright New

Year, and thanking you heartily,

I am yours as ever with as quick service as possible,

Janet Seymour. YOUNG.

Johnstown District. On December 30, at 1.20 A.M., a disastrous fire broke out on a Latrobe (Pa.) street and burned its way to an alley in the rear along which runs our main toll lead, also two cables of 300-pair capacity. The latter were completely destroyed, four sections being melted.

At 2 A.M. Salesman Cameron got busy at the telephone. The Plant department men ordered cable, etc. By 5.30 that evening new sections of cable were in place and working; 317 subscribers had been affected.

Pittsburgh District. The following New Year's greeting has been received at the Pittsburgh office addressed to all Pittsburgh and Wilkinsburg telephone operators and signed by A. B. Gildersleeve, who has been forwarding similar greetings for six years. Mr. Gildersleeve is a pioneer telephone and telegraph man, and was at one time Superintendent of the Oil Valley Line to Pittsburgh, Butler, Franklin, Oil City and Titusville. The greeting follows:

"I wonder if the people know What debt of gratitude they owe To Centrals, who by night and day Answer to calls and never say It is too early or too late, Or ask you if you will not wait Until they rest a tired brain, Or ask you to call up again.

All through the old departed year With wearied but attentive ear They've answered promptly to our call And proved a blessing to us all. And now I wish you all good cheer, A Happy Christmas and New Year."

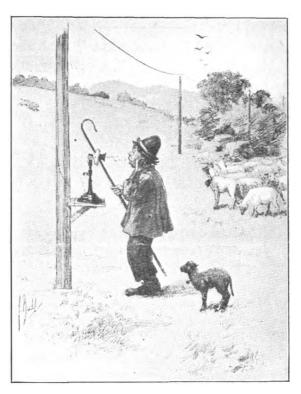
The Pittsburgh Dry Goods Company, in order to eliminate as far as possible personal telephone calls, has incorporated the following paragraph in a special notice to the employees:

"In investigating a number of recent complaints regarding our telephone service we have discovered that some employees are in the habit of using the telephone for personal calls, thus depriving both the house and customers of its use for business purposes. This practice must be discontinued. If you are summoned to the telephone be as quick and as brief as possible, always remembering that while you are talking someone else is waiting.'

The Fort Pitt Hotel has just completed an extensive addition to the building, and, to have their telephone equipment keep pace with it, has had us install 155 additional telephones and 8 additional trunks.

The equipment now includes 734 stations connected to a 4-position switchboard, which in turn receives Bell service over 24 trunks to our central

Salesman W. S. Ford, Pittsburgh, has recently made quite an enviable record in obtaining appli-



The Modern Shepherd Boy and the Wolf

Old Fables Brought up to Date*

The Old-Time Fable

A shepherd boy who watched a flock of sheep near a village brought out the villagers three or four times by crying out, "Wolf! Wolf!" and, when his neighbors came to help him, laughed at them for their pains. The wolf, however, did truly come The shepherd at last. boy, now really alarmed, shouted in an agony of terror: "Oh, good people, come and help me! Pray come and help me; the wolf is killing the sheep!" but, though they heard him, no one paid any heed to his cries.

Moral: There is no believing a falsifier, even when he speaks the truth. The Fable Brought up to Date

A shepherd boy had a flock of sheep to watch some distance from the nearest village. He cried "Wolf! Wolf!" but the villagers could not hear him. His master, being informed of this fact, had a "telephone service" installed, with a direct wire to his house. The wolf The boy telecame! phoned. The master answered the call, armed himself with a repeating rifle, got into his 40 H.P. motor-car, raced to the pasture, killed the wolf, and thus saved his flock!

MORAL: The "'Phone" is mightier than the Yell. C. J. BUDD.

*Reproduced from the January 1913 St. Nicholas with permission from The Century Company.

cations for private branch exchange service. The American Bridge Company at Ambridge, Pa., has supplemented its private interior system with our service. The Business Men's Exchange has contracted for a switchboard, 4 trunks, 25 stations and 9000 local messages. The Atlantic Refining pany formerly used a private system. The Standard Sanitary Manufacturing Company changed from unlimited private branch exchange of 30 stations to one of 44 stations at message rates with 50,000 local messages.

Early one Sunday morning not long ago a part of the offices of the Allegheny Steel Company near Tarentum, Pa., was burned. Three-fourths of the general office was destroyed, and in the part which the fire consumed was located the private branch exchange switchboard of our Company. The Tarentum Wire Chief, J. W. Alexander, learned of this about 8.30 through the operator reporting the line "short." Going to the ground at once, he connected subscribers' instruments to the trunk line so that temporary service might be given.

About 11.30 the Steel Company decided where they would place the temporary quarters, and so advised the Wire Chief. The Wire Chief immediately called Pittsburgh and had a switchboard sent out by motor truck, since there was no express that day. The lines had been brought into the temporary quarters by use of about 10,000 feet of twist, and as soon as the board arrived it was placed in position and current supplied from a set of dry batteries. At 3 o'clock Monday morning all twenty-three of the telephones had been connected up with the new board ready for service.

The promptness of the whole job so greatly pleased the officials of the Steel Company that they decided to allow us to take care of several other stations which they had formerly handled through a private branch exchange of their own The Local Manager was able to secure applications for thirteen additional private branch exchange stations due entirely to prompt work of Wire Chief Alexander and his force. The total number of stations were placed and ready for work by the time the offices opened Monday morning.

The General Manager of the Steel Company was quite pleased with the work of our Plant department and termed it 101 per cent. efficiency.

Uniontown District. The holiday season brought to the operating force at Uniontown the usual number of greetings and good wishes expressing the pleasure of the patrons with the service. One letter, which came from the Manager of the West End Theater, expressed appreciation for the "excellent service" which had been received and extended an invitation to the forces in both the operating room and the Local Manager's office to be present at any performance on either of the last two days of the year.

The Morgantown Wire Chief, S. P. Vonderau. has taken a course in the Pittsburgh Plant School although he has had several years' experience.

Recent Morgantown (W. Va.) private branch installations include the Central Auto Company and the residence of ex-Senator J. H. McDermott. The latter, which is a No. 2 private branch exchange, covers service in the home and three outside stations, located in the gymnasium, swimming pool and garage.

This letter was received on the day before



Christmas by the Chief Operator at Brownsville.

Chief Operator, The C. D. & P. Tel. Co., Brownsville, Penna.

This company wishes you and the girls under you a Merry Christmas and a Happy New Year. We highly appreciate the prompt, efficient and courteous service you and your aids have given us during the past year.

Respectfully yours, Isabella Connellsville Coke Company, Geo. E. Davis and W. J. Kearns.

Wheeling District. Tired and dusty after his long ride from Richmond, Va., a traveler en route to New York alighted from the train at Wheeling to rest. Noticing a telephone booth, he entered and placed a call which necessitated some conversation with the operator. Relating the incident to a friend, from whom it came to us, he said that the courtesy with which he was treated by the operator, and her pleasant, cheerful voice, chased away the blues and made him feel that the day was worth starting over. He considered our service as prompt as any he had ever received and our operator one of the most efficient.

When placing a call for her husband in Pittsburgh, a Cambridge (Ohio) young wife remarked in all seriousness: "There won't be any charge for this, will there, because it is a case of sick-

Queer uses for the telephone have been found, but this seems a little out of the ordinary: Too ill to attend her son's wedding, and anxious, as mothers are, to witness the marriage, a special telephone was installed in the bride's residence, a connection made with the groom's home, one hundred miles away, and the mother, on her couch, listened to the entire ceremony.

"Midland, Pa." has a little more significance lately when called by the trainman as one reaches its vicinity. The change wrought by the Pittsburgh Crucible Steel Company, whose \$8,000,000 plant is under construction, bids fair to be a substantial one. Heretofore we operated only two toll stations at this place. At present we have a magneto exchange giving night service. We now have 37 stations and the toll business is gaining rapidly although the exchange has been open but three weeks. The reason for the improved service is the fast increasing size and importance of the town. With its many industrial plants and the building boom now on, better service facilities became necessary, and they are looked upon by the people of Midland as only a step in the upbuilding of the town.

Ohio Valley General Hospital is the title given the handsome new edifice that is rapidly rising on Wheeling Hill, occupying the site of the old hospital. This structure when complete will have cost \$278,780 for the building and \$65,000 for equipment, elevators, etc. It will contain 80 rooms for private patients and ward rooms for 155 patients. In the old building one primary station and two auxiliaries furnished service. In the new building we are to install a switchboard and 2 trunk lines, with 39 stations and 69 jacks.

The Charleroi Plant Chief issued about a month ago a letter to each employee in that sub-district. The keynote was for each one to realize fully under what pleasant and favorable conditions he is asked to work. He was also asked to grasp every opportunity to become more familiar with the telephone business in its details so that he might warrant any advances that are likely to be made.



THE TRANSMITTER (2)



Vol. 1

BALTIMORE, JANUARY 1, 1913

No. 1



"TELEPHONE TABLE" OF THE WESTERN UNION COMPANY AT BALTIMORE

THE IMPROVED SERVICE-TELEGRAMS BY TELEPHONE.

MARK MELLOR, Special Agent.

HE famous Blue Bell seal of our parent Company, the American Telephone and Telegraph Company, means more to the people of this country to-day than it did a few years ago. We telephone employees, also, realize that the words "telephone" and "telegraph," incorporated in that seal, have broadened our field of labor and our responsibility to the public. The familiar phrases, "Telephone your telegrams," "Jot down your messages, then go to your Bell telephone and say 'West-ern Union,' " have helped materially to educate telephone patrons in the fact that the Bell telephone is a telegraph station

That the general public is not slow to grasp any new idea that will tend to eliminate unnecessary work and save time, is displayed by its willingness to adopt the new method of transmitting telegrams by telephone

It indicates that customers realize the possibilities of universal service with itgreat time-saving features. adopted this new method of dispatching telegrams as though they had never been for years slaves to the yellow telegram blank and the more or less dilatory tactics of the messenger boy. That the publie has appreciated and utilized this new feature is evidenced by the fact that approximately 50 per cent, of the originating telegraph business comes to us over the telephone, with about the same per centage for telegrams delivered.

The combined service has made it possible to give the sort of service that should be given. Telegrams, with the exception of deferred messages, are delivered to telephone patrons within three to five minutes after they are received by Morse. Persons living in suburban or rural sections not only receive their telegraph messages more promptly over the telephone, but the sender is assured that should the telegram arrive at its des-(Continued on page 4)

New Periodical of The Chesapeake & Potomac Telephone Company (two-thirds actual size) Also part of page 2

It is quite probable that the letter had a telling effect in urging the employees to their best efforts.

The C. D. & P. Tel. Co., Benwood, W. Va.

Gentlemen:—It is the desire of the Mayor and Council to extend their thanks to you for your quick and good service rendered to the city of McMechen on December 7, 1912, when the fire was discovered in the Hart Building on the corner of Logan and Sixth Streets. At the time it was plain to be seen that it had too much of a start to be controlled by our Volunteer Fire Department and small chemicals, and the departments from Wheeling and Benwood were our only salvation. Those departments were called by telephone through Benwood. We could not have received better service than we received through the Benwood office.

Yours truly, Chas. Morris, Mayor. McMechen, W. Va., Dec. 15, 1912. MISS DIEHL. THE TRANSMITTER

A PERIODICAL OF HELPFULNESS

Published the first and fifteenth of each month in the interests of the employees of

THE CHESAPEAKE AND POTOMAC TELEPHONE COMPANY

AND ASSOCIATED COMPANIES

T. T. COOK, EDITOR 5 LIGHT STREET,

SUBSCRIPTION PRICE: To employees of these Companies,

To employees of other Bell Companies, - \$1.50 Per Ann Payable in Advance

Vol. 1 Jan. 1, 1913 No. 1

THE TRANSMITTER Salutatory makes its bow to the 4,300 employees of

The Chesapeake and Potomac Telephone Company and Associ-Digitized by Gogle

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J.C.WEIRICK, Division Correspondent

Allentown District. The entrance of the Adams Express Company into Allentown (via the Lehigh Valley Transit Company who recently opened their new express service between this city and Philadelphia) was hardly announced before Salesman Sheldon of the Allentown force was on the job and secured 8 applications for direct line service at Allentown, Bethlehem, Catasauqua and Northampton. After the service was established in this city a careful check on all busy calls was kept by the Traffic department, and a further result was the superseding of direct lines to a private branch exchange with 7 stations.

Local Manager Howard of the Bethlehem office entertained representatives of the Bethlehem Globe, and a complete inspection of our exchange was made. The newspaper men agreed that they had found much of interest and many difficulties that we are daily overcoming of which they had never known.

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A special canvass was made at Bethlehem during December among residence prospects for the purpose of selling telephones for Christmas presents. The canvass resulted in fourteen applications being taken for service to be presented to the home as Christmas presents.

Local Manager Waltman of the Easton office while on an inspection trip to the Easton Hospital found that an extension station in a certain part of the hospital was very necessary. Before leaving he secured an application for a private branch exchange with 11 stations, superseding a direct line with one extension.

A new Bell subscriber at Easton met the salesman on the street, who had taken his application. During a brief conversation the user asked our representative if he knew the fare to Newark, as the subscriber had some business to transact in that city. The salesman replied, "Fifty cents by Bell telephone, there and back." The subscriber said he never thought of that and would telephone.

The following letter from the Mayor of Easton to the City Council is quite complimentary to Bell Telephone construction methods:

December 26, 1912.

To the Councils of the City of Easton.

Gentlemen: The concurrent resolution passed by you permitting The Bell Telephone Company to open streets during the winter months in order to complete its conduit system has been signed by me, for the reason that I requested its final passage and was surprised they were willing to do the work at this season at greater expense. If the work were to be done for me, I should greatly prefer it to be done late in the fall or early in winter, even though more expensive, for the reasons that there is much less travel at this season, the trench settles in the early spring and can be surfaced before the streets are cleaned, and the public not be annoyed by open streets all summer. I would like to say that I never saw any better work done by any contractor. If other streets are to be improved, they certainly will be. the conduit should be completed as early as possible, and the unsightly poles and wires removed from our streets. My effort, with your approval, will be to have the other companies proceed as rapidly as possible, regardless of the season.

Yours very truly,

D. W. Nevin, Mayor.

Altona District. An Altona subscriber noted on a toll statement a charge for a call to "Three Springs,"—a near-by town. Later he called the Business Office and wanted to know why he was charged with repairs to his telephone.

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Pire destroyed the engine house and boiler proom of the Madera Hill Coal Mining Company at their Elizabeth Mine near Houtzdale, Pa. The Superintendent called our Clearfield office at 10.30 in the morning, requesting us to install an extension set one-fourth of a mile from the main telephone. Our lineman drove fifteen miles to the scene of the fire and had the extension O.K.ed the same day.

The new multiparty subscribers at Houtz-dale, Pa. (Clearfield vicinity) are so well satisfied with the service they are receiving that they make use of every opportunity to spread the good news to their friends, who are opposition subscribers. One of them instead of sending his remittance made a special trip to our Clearfield office in order to let the Local Manager know that the service is far superior to any other.

A number of Lewistown subscribers have appreciated the fact that mailing receipts, when bills are paid by check, involve a large expenditure by our Company for postage. Some have made known by letter that in the future their checks will be the only receipts necessary.

About a year ago a Lewistown merchant had his Bell telephone disconnected, stating that in the future he would use other service, as he would then not be required to call by number. Recently he made known his desire to replace that service with the Bell. When told that one of the essential things necessary for Bell service would be to call by number, he said, "I'll gladly do that," and signed the application.

"My hat is off to you, for there is no better service than the Bell," said a traveling salesman to John Davis, the veteran lineman of the Altoona Plant department.

The proprietor of a Ridgway drug store advises that, since they have been using the "Special Attention" rubber stamps and Blue Bell stickers, his telephone orders have increased considerably.

Williamsport District. The Directors of the Middlecreek Valley Telephone Company, which connects with this Company at Sunbury, Pa., at its last meeting declared a 2 per cent. dividend to be paid February 1, 1913, to stockholders of record of January 15, 1913. In two and one-half years this Company has connected over 500 telephones in Snyder County, and it is giving continuous day and night service, not only locally, but to all points on the lines of the Bell Company. The success of the enterprise is due to the active and effective management of its General Manager, Mr. Frank A. Eyer, who has had charge of its affairs since the beginning.

Upon a recent suggestion from the Division Manager's office an invitation was extended through the Principal of the Wellsboro High School to the Senior Class asking its members to visit the Wellsboro central office. The visit proved to be mutually worth while. The

agent arranged with the Principal of the High School that twenty-one students should report at the Wellsboro central office. The history of the telephone, its uses and advantages, was discussed with the students. The interest shown by them was very gratifying. The students asked many intelligent questions, making their visit a great benefit to the class and a pleasure to the Bell representative

Applications have been received covering a multiparty line running from Wellsboro to Ansonia and Asaph with 12 subscribers' stations. The only station furnished heretofore in this locality has been one public telephone.

Two multiparty lines have been put in service in the Bellefonte District during the month of December,—one at Bellefonte with 7 stations, and another at the State College exchange with 8 stations. Both these multiparty lines furnish additional facilities in a territory where we are now operating a number of lines.

Collector T. W. Bower, at Williamsport, during the past eight months covered 1524 miles on his bicycle, with an expense of \$1.80, showing a saving in carfare during this period of \$21.55. The avoiding of long waits for cars and other conveyances was much greater.

Contractors are now at work making extensive alterations to the Williamsport building. The District Manager's offices, which are on the second floor at the present time, will be moved to the first floor. The rooms now occupied by the District Manager will be occupied by the District Plant Superintendent. The operator's rest rooms are being moved to the rear of the building in order to bring them nearer the operating room. The enlargement of the power room will give additional room which was necessary for this work.

Fireproof windows are being installed in the operating room, also a brick fire wall, cutting of the operating room from the rest of the building. This will be the means of making the rear end of our building fireproof.

A new Ford two-passenger runabout has been purchased for the use of the Plant department at Williamsport.

From March 4, 1912, to December 23, 1912, 703 visitors have been shown through the Williamsport, Pa., central office. This number includes men and women of all professions, and we feel that the time spent conducting these people through our central office and explaining the system in a general way has done much good.

Vare Brothers, contractors, have completed the construction of 2100 additional trench feet of underground work at Sunbury, Pa. This new work will provide service for the east end of Sunbury and will relieve conditions in that section.

On Sunday, December 22, at 10 A.M., the large wholesale grocery house of F. B. Thrall & Co., situated at the corner of Hepburn and Third Streets, Williamsport, Pa., was completely destroyed by fire, causing the loss of a 50-pair cable which served 61 subscribers in that vicinity. The fire burned until the following day, but the Plant department started the work of repairing the cable at 2 P.M., and at 8.55 P.M. the same day the 200 feet of cable had been repaired, 61 stations tested out and reported O.K.

Organization Changes

Effective December 18, 1912

The Plant department has been charged with the responsibility of determining the standard types of motor vehicles and accessories to be purchased, and with the methods of maintaining and operating motor vehicles.

In order to secure the best results from the operation of motor vehicles the following organization has been established:

The Superintendent of Supplies, under the direction of the General Superintendent of Plant, will have general supervision over the purchasing, operation and maintenance of motor vehicles. He will determine the standard types of motor vehicles and accessories to be bought, approve the location of the Company's garages and motor vehicle repair shops, and be assisted by the Supervisor of Motor Vehicles.

The Supervisor of Motor Vehicles, under the direction of the Superintendent of Supplies, will prescribe rules for the proper operation and care of motor vehicles and provide for the observance of such rules. He will determine the standard accessories required for use on motor vehicles. such as tires, lubricants, etc.; provide uniform methods of reporting the cost of operating motor vehicles and analyze cost data; provide instructions covering minor repairs to motor vehicles; determine when motor vehicles should be overhauled and repainted, authorize this work to be done in the Company's shop or by the manufacturer of the vehicle, as may be advisable; determine standard uniforms for drivers and riders; and see that advertising matter, approved by the Publicity Manager, is placed on motor vehicles.

The Supervisor of Supplies is responsible for the operation and maintenance of motor vehicles, according to the approved methods, and for the operation of motor vehicle repair shops. He is assisted by the Inspector of Motor Vehicles.

The Inspector of Motor Vehicles will instruct drivers and riders of motor vehicles in the correct methods of operating motor vehicles and of making minor repairs, observe drivers' methods of operating and caring for motor vehicles, report to his superior matters requiring corrective action, inspect motor vehicles for appearance and advertising, and inspect uniforms to see that they are kept in presentable condition.

Repair Shops equipped for the general overhauling of motor vehicles are located at Philadelphia and Pittsburgh.

The general overhauling of motor vehicles in the Philadelphia, Eastern and Harrisburg Divisions will be done in the Philadelphia repair shop, unless otherwise determined by the Supervisor of Motor Vehicles.

The general overhauling of motor vehicles in the Pittsburgh Division will be done in the Pittsburg repair shop, unless otherwise determined by the Supervisor of Motor Vehicles.

The appointment of a Supervisor of Motor Vehicles has been authorized and the appointment of an Inspector of Motor Vehicles has been authorized for the Philadelphia and Eastern Divisions, and at the discretion of the Plant Superintendents for the Pittsburgh and Harrisburg Divisions, when such action may be necessary. The Supervisor of Motor Vehicles and the Inspectors of Motor Vehicles will perform the aforementioned services for the Commercial and Traffic departments, subject to the direction of the Division Manager and Traffic Superintendent, as the case may be.

Heads of departments will be requested annually to submit an estimate of their requirements of motor vehicles for the following year to the

Superintendent of Supplies, who will compile a statement of the amount of money required. This statement will be submitted to the General Superintendent of Plant to be included in the Budget. When motor vehicles are to be purchased, division heads of departments will prepare a statement showing the necessity for the use of a motor vehicle and what saving, if any, will be made by the use of a motor vehicle. This statement will be forwarded to the Superintendent of Supplies, who will make a suitable recommendation to the head of the department desiring the machine. Requisitions for motor vehicles will be prepared by the Superintendent of Supplies for approval by heads of departments.

Further Organization Changes

The Bell Telephone Company of Pennsylvania

W. P. Poole, Jr., formerly Local Manager, has been appointed District Manager, West Chester, Pa., District.

L. A. Winne, Student Engineer, Engineering Department to Plant Department, New Jersey Division.

E. P. Yerkes, Student Engineer, Engineering Department to Plant Department, Philadelphia Division.

J. H. Miller, Specification Writer, Plant Philadelphia to Plant Superintendent's Office, Eastern Division.

C. E. Althof, Groundman to Climber, J. R. Masterson's Crew to James Sibert's Crew (Erie District).

F. O. Lauer, Draughtsman to Inspector, District Plant Superintendent's Office, Scranton.

F. H. Williams, Special Inspector to Supervisor of Motor Vehicles, Seventeenth and Filbert Maintenance to Office of Superintendent of Supplies.

J. A. Fitzpatrick, Engineer to Assistant to Traffic Engineer, Traffic, Philadelphia.

Wm. T. Roache, Surveyor to District Foreman, Diamond Equipment to Germantown Equipment Force.

Jesse Seybert, Climber to Foreman, J. R. Masterson's Crew to Line Crews (Erie District).

The Delaware & Atlantic Telegraph & Telephone Company

H. Doughty, 3rd Class Climber to 2nd Class Climber, Bridgeton, N. J.

M. Jones, 1st Class Climber to Special Climber, Bridgeton, N. J.

V. J. Holmes, Clerk to Automatic Collector, Plant Eastern to Commercial Department.

The Central District & Printing Telegraph Company

Charles Miller, Clerk, Plant Department, Plant Superintendent's Office to Accounting Department.

A. G. Bender, Fieldman to Special Agent, Rights-of-Way Division.

W. S. Ferrell, Helper to Groundman, Wheeling District.

Benj. H. Brand, Repairman to Climber, Wheeling to Salem, Ohio.

Leonard Fick, Lineman to Climber, Pittsburgh District.

John Moore, Lineman to Climber, Pittsburgh District.

Jas. Keys, Lineman to Climber, Pittsburgh District.

W. J. Shaffer, Lineman to Climber, Pittsburgh District.

Wm. Behan, Lineman to Climber, Pittsburgh District.

J. W. Weekley, Lineman to Climber, Pittsburgh District.

Riley Lee, Driver to Climber, Pittsburgh District.

John Corkan, Installer to Central Office Man, Pittsburgh District.

D. C. Mackowan, Installer to P.B.X. Foreman, Pittsburgh District.

H. S. Price, Central Office Man to Fieldman, Charleroi, Pa.

Miss May A. Butler, Operator, Bell Tel. Co. of Penna. Traffic Department to Traffic, Pittsburgh (Hiland).

A. K. Dement, P.B.X. Foreman to Switchboard Installer, Supervisor of Equipment's Office to Switchboard Installers'.

B. M. Gordon, P.B.X. Foreman to Senior Foreman, Grant, Pittsburgh District.

Floyd Donahue, Messenger to Clerk, Automatic Division, Traffic, Pittsburgh, to Commercial Department, District Manager's Office.

R. F. McKinney, Inspector to Plant Chief, Pennsylvania District, Plant Supervisor's Office to Charleroi, Pa., Plant Chief's Office.

C. L. Gottschalk, Plant Chief to Spec. Engr., Pennsylvania District, Johnstown Sub-District Plant Chief's Office to Engineering Division.

H. W. Hewitt, Lineman to Climber, Pittsburgh District.

R. S. McCombs, Groundman to Climber, Pittsburgh District.

G. Boston, Groundman to Climber, Pittsburgh District.

Thos. Kaspert, Driver to Climber, Pittsburgh District.

Geo. Miller, Lineman to Climber, Pittsburgh District.

W. M. Pell, Lineman to Climber Pittsburgh District.

P. A. Whitter, Lineman to Climber, Pittsburgh District.

P. W. Bareman, Grounderer, to Inspector.

R. W. Boreman, Groundman to Inspector, Wheeling District.

J. W. Shannon, Groundman to Field Engineer, Wheeling District.

Earl E. Boren, Installer to Inspector, New Castle Sub-District to Pennsylvania District.

J. R. Beck, Repairman to Line Order Foreman, New Kensington, Pa.

Ora Childers, Repairman to Climber, Brownsville, Pa.

David Walters, Repairman to Assistant Wire Chief, Charleroi, Pa.

Hugh Camphire, Central Office Man to Assistant Wire Chief, Pittsburgh District to Greensburg, Pa.

C. C. Cover, Central Office Man to Clerk, Sharon, Pa., to Pennsylvania District.

Leo R. Smith, Clerk to Installer, Plant Chief's Office to New Castle, Pa.

An Enlarged Field

The Cumberland Telephone Journal, heretofore published in the interests of the Cumberland Telephone & Telegraph Company, Nashville, Tenn., will hereafter have included in its territory that of the Southern Bell Telephone & Telegraph Company at Atlanta, Ga. This paper is one of the oldest papers published in the interests of universal service—being now in its tenth volume.

The Publicity department at Atlanta will edit and supervise the paper, and its headquarters will therefore be removed to Atlanta.

The combined territory of this new group of Bell companies forms one of the largest in point of area of any in the United States.



Our Societies

The Spare Pair Society

Auditorium, Parkway Building, Broad and Cherry Streets, Philadelphia.

Thursday, January 16, 1913.

Speaker: Mr. C. W. Egan, General Claim Agent, The Baltimore & Ohio Railroad Company.

Subject: "Safety First" (illustrated).
Speaker: Dr. Matthew J. Shields (Lieut. M. R. C., U. S. Army), Field Representative, American Red Cross Society.

Subject: "First Aid to the Injured."

Dr. Shields' lecture will not be a repetition of the First Aid lectures given to the Plant department employees, but will be supplementary to them and will be illustrated by work with a squad of trained men.

All male employees of the Company in Philadelphia and near-by locations are urged to attend.

The Telephone Society of Harrisburg

Board of Trade Auditorium. January 20.

Speaker: Mr. J. C. Nowell, General Superintendent of Plant.

Subject: "Accidents."

The Telephone Society of Pittsburgh

The Telephone Society of Pittsburgh met Friday evening, January 3, in the Jenkins Arcade Assembly Room. An unusually large gathering greeted the speaker, Mr. J. C. Nowell, General Superintendent of Plant, whose paper on "Accidents" was intensely interesting.

A short farewell talk was given by Mr. S. P. Grace, the new Engineer of Outside Plant, who expressed regret at severing his close association with the Pittsburgh employees. Mr. B. Stryker, the new Plant Superintendent, and Mr. W. W. Henderson, the new District Commercial SuperNew Lunch Room 1230 Arch Street Philadelphia

The Steward is Richard Gefvert



intendent, also responded to President Boeggeman's call with short talks.

A resolution was adopted by the society in appreciation of the generosity of the officers in adopting the new Pension and Benefits Plan.

Lebanon's Branch of the "Bell-Grow"

An interesting and enthusiastic meeting of the employees in the Lebanon exchange, including Plant, Traffic and Commercial departments, was recently held in the Lebanon office. Twenty-four employees were present, all of whom were most enthusiastic over the possibilities of the "Bell-Grow" Club.

A number of good suggestions have been received from employees of all departments, out of which a good percentage of live prospects has been secured.

Camden Telephone Society

Goff Building, 23 Broadway, Camden. Thursday, January 16.

Mr. A. B. Marston, Equipment En-Speaker: gineer, Plant Eastern.

Subject: "Central Office Equipment."

Partial View of Western Electric Company's Offices in Philadelphia

Telephone Pioneers' Executive Committee Meeting

On December 19 the executive committee of the Telephone Pioneers of America met in New York. The following members were present: Messrs. F. H. Bethell, Henry W. Pope, J. J. Carty, C. R. Truex of New York, and Thos. D. Lockwood of Boston.

The Secretary was directed to prepare a system and routine to be followed in the admission of members. The chairman of the executive committee, Mr. T. D. Lockwood, was empowered by the executive committee to appoint a committee of such number of members as necessary to consider what changes, if any, are necessary in the constitution and by-laws. The Secretary was constitution and by-laws. given discretion to invest the surplus funds for the association, and a vote of thanks was given to the general committee on the American Telephone and Telegraph Company, the New York Telephone Company, the Western Electric Company and the New York Telephone Society, who entertained the Pioneers and their wives, daughters, etc., during the second convention, which was held in New York, November 14, 15 and 16, 1912. Thanks were also tendered to John Donelly, acting Mayor of Newark, N. J., who is also a member of the Pioneer Association (1880). for his invitation to the members to inspect the public buildings in that city.

Western Electric Company's Philadelphia Office

This is a partial view which does not do justice to the desk room and number of employees on the second floor of that company's building at Eleventh and York Streets.

At row 1 of desks-in the lower left cornerare the Telephone Claim Clerk, Pricing Clerk and Stock Editor.

At row 2 are the Service Clerk, Stock Maintenance Clerks and Editors.

At row 3 are the Telephone Invoice Checkers. In the extreme rear are the Western Electric purchase order clerks and stenographers. At the extreme left are the comptometer operators. At the extreme right are the corps of telephone service clerks, stationery editors, typists and comparing clerks. Dictation is done by phonograph.

In the rear is a system of files where "live" telephone tickets are audited and kept for ready reference. Beyond this is the record room and filing department.

Not shown are the non-licensee sales departments, purchasing, bookkeeping and magazine The offices of the Manager of the Philadelphia House. Stores Manager, Buyer, Treasurer and Accountant were behind the camera.









Future General Managers Some of Our Central Philadelphia Telephone Messengers

UPPER ROW: Wm. Lenox, James McCotter, Richard J. Connelly, Thomas Hendricks. CENTER ROW: Wm. H. Ewell, Ralph Turner, Philip Nichols, Leonard Freas, Jos. Specht, Raymond Stocker, Labar Lambert. LOWER ROW: Chas. Rogers, James Collins, Francis P. O'Keefe, Hugh McGuigan, Harry Vogt, Irving S. Turney, Patrick F. Callahan, Wm. Kouba, Fred. G. Henger, Robert R. Rehder, Neil L. Brown.

Defective Vision*

VOL. IX

PHILADELPHIA, PA.

By E. P. Bardo, District Manager, Wilmington, Del.

7OUR Chairman kindly allowed me to select the subject for this paper, and as my inexperience in the preparation of papers for platform discussion would tend to produce me of a rambling nature, I selected a subject that permits of wide latitude.

Some portion of my paper might convey the impression that I have an accumulated grouch and am taking this opportunity to work it off, out I assure you that such is not the case. I should much rather discuss the pleasant things connected with our work, and the best of ourselves, but I believe that these subjects should be left for more or less public discussion, and that, n the privacy of our society meetings, we should be perfectly frank and honest with each other about our common failings. They, after all, are merely an evidence that we are human.

The subject of this paper is "Defective Vision," but I wish to say right here that I am neither an oculist nor an optician, and don't propose to discuss physical defects ordinarily treated by the above-named professions, but to discuss the ques-

*Presented before The Camden Telephone Society, December 19. (Continued on page 7)

Some Phases of the Pension Plan



PROMPTLY at eight o'clock the doors were closed and the President of The Philadelphia Telephone Society called the meeting to order on January 7. After the business part had been completed the doors were again opened and forty additional men came in. There were no seats in the main audience section or in the gallery and it was

necessary to fill the platform with extra chairs and to "accommodate" still others with seats on the platform floor. There were in all 506 members present.

J. L. Kilpatrick, Chairman of the House Committee, then made a few remarks on the society's prospects for 1913. He said that we had taxed the capacity of the hall at two consecutive meetings and the attendance was more gratifying than

Meetings in the future will start promptly at eight o'clock. We now have approximately 1300 members, and expect 1800 during the present season. Because of all of these facts arrangements

(Continued on page 4)

Traffic Conference

FEBRUARY 1, 1913

No.

On the evening of January 6 the Traffic supervisory forces of the Philadelphia and Newtown Square offices of the American Telephone & Telegraph Company held their annual traffic conference at the Bourse Building to consider the results accomplished during 1912 and to adopt ways and means to improve the long-distance service in 1913. Refreshments were served.

The following employees wer present:-

Messrs. O. K. Tabor, District Traffic Chief, W. J. Herrmann, Assistant Traffic Chief, and P. S. Farrar, Assistant Traffic Chief. Misses K. S. Spielberger, Chief Clerk; A. T. Byrnes, Chief Operator; L. F. Dougherty, Chief Operator (Newtown Square); S. Fitzpatrick, M. Foster and M. Silver, Assistant Chief Operators; F. M. Bitner, Instructor; A. V. Gledhill and E. A. Brennan, Service Observers; B. M. Carnes, A. S. Fulton, E. Gledhill, A. M. Hatton (Newtown Square), E. M. Heeney, B. C. Misselwitz, A. M. Oetinger, E. V. Praul and I. Trout, Supervisors; N. M. Bolton and M. S. Roberts, Special Complaint Operators; N. M. Sherman, Senior Complaint Operator; and L. M. Howell, Clerk. District Traffic Chief Tabor presided.

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THE TELEPHONE NEWS

The Bell Telephone Company of Pennsylvania The Central District & Printing Telegraph Con The Delaware & Atlantic Telegraph & Telephone Co. The Diamond State Telephone Company

F. H. BETHELL, President
FORD HUNTINGTON, Vice-President
FORD HUNTINGTON, Vice-President
L. H. KINNARD. Second Vice-President and General Manager
W. S. PEIRSOL, Sec'y and Treas.
S. WILEY, General Auditor
J. II. CROSMAN, Jr., Gen'I Com'I Sup't J. C. NOWELL, Gen'I Sup't of Plant
W. R. DRIVER, Jr., Gen'I Sup't of Traffic N. HAYWARD, Engineer
P. O. COFFIN, Auditor of Receipts
E. C. WILEY, Auditor

Managing Editor, E. H. HAVENS, 17th and Filbert Streets, Philadelphia, to whom all communications should be addressed

SUBSCRIPTION PRICE:

To employees of the above Companies
To employees of OTHER BELL COMPANIES,
navable in advance
\$1.50 per annum

No. 3 FEBRUARY 1, 1913 Vol. IX

Our President in Philadelphia

UESDAY, February 4, will be a red-letter day-or rather eveningfor The Philadelphia Telephone Society for several reasons.

First, Mr. F. H. Bethell, President of the Company, will be the speaker. His subject will not be announced until that evening.

Second, the meeting-place of this, the Company's largest and oldest society, has been changed to the Scottish Rite Hall, southwest corner of Broad and Race Streets, Philadelphia. Here is provided a well lighted, well ventilated room with a large platform and a slanting floor with upholstered seats to accommodate 1200 people.

Third, after the address the newly organized Blue Bell orchestra of about 30 men and glee club of about 25 men will entertain the members. They have been practicing at odd intervals for about three weeks and are said to be a credit to the Blue Bell organization. Some of the best voices including trained ones of employees in and near Philadelphia are in the glee club and the majority of men in the orchestra have had musical training each in his line.

Fourth, the promptness of beginning the meeting assures something of decided interest, handled with dispatch.

Fifth, a reception room has been provided where there will be something to smoke for all who care to gather here and become better acquainted.

Remember: Eight o'clock, February 4, Broad and Race Streets.

Get in the photograph!

Those Wants of Ours

NE of our clerks is determined to see the Panama-Pacific Exposition at San Francisco in 1915. Like any normal person, he has other wants almost without number. When pay-day approaches, his financial status is in inverse proportion to the groups of things that his eyes discover. The store window decorators seem to conspire in making his expected stipend diminish as a possible alleviator.

However, in spite of all of these "difficulties" and desirables there is one plan upon which his mind is set-viz., a trip to the Pacific Coast in the summer of 1915. No booklet or circular that has been issued by the railroads or other interests pertaining to the great West escapes his study. It is probable that he could lecture on the sights along the way of every possible route if only the opportunity were presented.

But-and it's a serious "But" too, with a capital B- that involves money. How is a fellow with such a salary and so many wants going to San Francisco or anywhere else, beyond the day-excursion distance, when each pay-day finds him "busted?"

I'll tell you. He's a Bell Telephone employee. Therefore, he's a person not to be discouraged by even Sysiphean labors. Moreover, to possess the requisite bank account as a result of personal savings may be classed in no less striking terms. This clerk began a short time ago to save every dime received in change until a sufficient amount is in bank. With over two years intervening, he will probably reach his goal and have money to spare. He has already been inconvenienced dozens of times in selecting coins for carfare, newspapers and cigars, but he has not yielded.

The point to be made is that, if one average person can "earn a little and spend a little less" when he has a definite object in view, why may we not be as successful? We may have many varied wants, at times, but if we eliminate the less desirable and concentrate on one or, at most, a very few, we can get them all —one at a time.

Neat Telephones

E, as employees of a Telephone Company, are interested in educating the public to understand the telephone thoroughly and to use it prop. !

As a factor in this education of the public we exercise a force the importance of which we often underestimate. To convince ourselves thoroughly of this we need only to consider how potent an influence a courteous operating force has been in softening the public voice, and how much the example of the Telephone Company's employees had to do in backing up its advertised plea for the abolition of the superfluous "Hello!"

Thousands of subscribers have never seen any of our plant except the instruments which sit on their desks or hang on their walls. To them that instrument symbolizes our whole plant. That some of these telephone sets are untidy, any "trouble-man" can testify, and he can usually add a wealth of examples for good measure. We know of one bakeshop telephone which is almost as white as the shop's chief product, and a mouthpiece which is chipped and gray with dust is hardly an uncommon sight.

To the man who is an enthusiast about the telephone business a shiny new desk stand is a thing of joy. It produces an almost imperceptible thrill. Now, telephones, like shoes, aren't new very long. They are used too much for that. And the Company can't afford to replace them every week, nor every month, nor oftener than is reasonable considering their life. But have we all discovered how readily our telephone set will respond to a little good treatment? Do we all know that hard rubber mouthpieces actually thrive on soap and warm water, and that, when so treated, they have been proved by thorough tests far more sanitary than glass or paper mouthpieces? We'll take for granted that these will not be applied while the mouthpieces are in place on the transmitter. The black pedestal of a desk stand requires nothing more annoying than a daily rub with a soft cloth, and even the nickeled transmitter case demands only an occasional application of metal polish in addition to a daily rub. And desk-stand cords, no matter how badly they're treated, won't twist themselves into "double reefs." Does the "neatness" of your telephone set seem to you a trivial matter? It is, but close attention to trivial matters is what makes for the success of an individual or a corporation.



Sergius P. Grace Engineer of Outside Plant

ERGIUS P. GRACE, Engineer of Outside Plant, has been engaged in engineering and construction work since his graduation from college sixteen years ago. Although born and educated in Michigan, his parents were of New England stock from near Boston, Mass. (In his father's side, Mr. Grace's great-grandfather was a private in the American Revolution, carrying a musket at Bunker Hill and at Valley Forge. His gun remains in the possession of another member of the family. On his mother's side, Mr. Grace's grandfather was the construction engineer of the Delaware and Raritan Canal at New Brunswick, N. J., for many years that important inland waterway between

Born in 1875 in Farmington, Mich., Mr. Grace's early education was begun there. Later the family removed to Ann Arbor, where the educational advantages received in the public schools enabled Mr. Grace to enter the University of Michigan with advanced entrance credit. (This institution, as is probably quite generally known, is one of the very largest in the United States.)

New York and Philadelphia.

Within his four college years Mr. Grace received the usual degree of Bachelor of Science in Electrical Engineering and in addition completed nearly all the work necessary for a similar degree in Mechanical Engineering. In recognition of his work in telephone engineering he was later honored with the additional degree of Electrical Engineer.

Immediately after graduation—although but twenty years of age—Mr. Grace entered the telephone field in Detroit. When the Detroit Telephone Company was organized he started as wireman.

He was soon given the title of Chief Engineer of that company, and to that was added the same title as well as Manager of the People's Telephone Company of New Orleans, La.—another company owned by the same management.

In 1900 Mr. Grace removed to Detroit and was engaged in switch-board engineering for the Erie Bell System—a holding company of Charles J. Glidden, operating the Bell Telephone System in Michigan, Wisconsin, North and South Dakota, Minnesota, Texas and Arkansas.

In 1901 Mr. Grace became Superintendent of Equipment of The Southwestern Telephone and Telegraph Company, with offices in Dallas, Texas. While engaged here typhoid malaria, contracted on the Gulf coast, nearly cost Mr. Grace his life and a change to a Northern climate became imperative.

In the early part of 1902 Mr. Grace was Chief Engineer for the Interstate Telephone and Telegraph Company at Trenton, N. J., but later in that year joined the engineering staff of the American Telegraph & Telephone Company at Boston, Mass.

After a year in that capacity Mr. Grace was appointed Chief Engineer of The Central District & Printing Telegraph Company at Pittsburgh, and held that title until September, 1908,

when he became General Superintendent of Plant of that company. The title was again changed (April, 1910) to Superintendent of Plant when that company became associated with The Bell Telephone Company of Pennsylvania.

While in Pittsburgh Mr. Grace was interested in general engineering matters and was recently elected, for the year 1913, to the Presidency of the Engineers' Society of Western Pennsylvania. This society has over one thousand members in the vicinity of Pittsburgh, and as that city is essentially one of engineers of almost every branch, it includes a wide range of men of this profession.

As previously stated, Mr. Grace became our Engineer of Outside Plant, January 1, 1913.



Universal Service

Approximately \$4,500,000 will be devoted by the Southwestern Telegraph and Telephone Company during the present year in improving and extending its plant in Texas. That company has been reorganized to take over the properties of The Bell Telephone Company of Missouri, The Missouri and Kansas Telephone Company and The Southwestern Telephone Company. The headquarters of the new group will be at St. Louis, Mo., with Mr. H. J. Pettengill as President

The Officers' Dinner

N Tuesday evening, January 14, the officials of The Bell Telephone Company of Pennsylvania gave a dinner to over a hundred of the supervisory employees of the Company, nearly all of whom were located in or near Philadelphia.

The dinner was at seven o'clock and was held in the South Garden at the very top of the Bellevue-Stratford Hotel, Philadelphia.

The guests were welcomed in a large reception hall adjoining the South Garden. From here the guests passed directly into the South Garden proper, where each one easily found his own table, as a good-sized balloon, with the number of the table painted on it, floated above each table.

When all the tables had been filled, with the exception of one at the side of the room, P. C. Staples, sitting there alone, arose to remark that some of the expected and special guests had not yet arrived. Almost immediately he was interrupted by the honk of an automobile horn and the noisy entrance of what must surely be an important guest. However, no one recognized the person who entered, and at Mr. Staples' invitation he introduced himself as "Nobody, the Poor Subscriber." Surely, he was a "dark" representative of the once-upon-atime subscriber with the disconnected telephone and a large grievance. The disconnected telephone he bore in front of him on a wheelbarrow, the grievance was apparent all over his countenance. He in turn was interrupted by a Storybook Salesman, who entered at that time The Salesman soon convinced the Poor Subscriber that he had the wrong department and he was "referred" in turn to a Lineman, an Operator, an Accountant, a Collector, a Pay Station Attendant, and a Western Union Messenger as they entered the room and seated themselves at the special guests' table. The dialogue which followed was characterized by the authors themselves as "the greatest immorality play of the age." This, as the program told, was the first appearance of the Blue Bell Stock Company. The departments which did not get their fair share of knocks, we are sure, must have had something to do with the writing or production of the play. F. B. Evans and J. M. Repplier are "li-

able" for the lines, while E. J. Speh, who knows everything about everything from Gem clips to motor cars, was responsible for the costumes and scenic effects. "Nobody, the Poor Subscriber," was interpreted by J. M. Brown, Jr.; a Salesman, by R. L. Barrows; a Lineman, by A. Silverman; an Operator (whom Mr. Driver was immediately anx-

The Philadelphia Telephone Society
EIGHT O'CLOCK
February 4
Scottish Rite Hall
Southwest Corner Broad and Race Sts.

Don't forget that the speaker is to be Mr. F. H. Bethell, President

ious to hire), by C.O'D. Lee, Jr.; an Accountant, by C. L. Meixel; a Collector, by G. E. Gable; a Pay Station Attendant, by F. P. Meigs; and a Western Union Messenger, by A. deB. Robins. After "the poor subscriber" had been satisfied beyond peradventure that The Bell Telephone Company was in business only for purposes of altruism and charity, the olio, which is at least unusual with a morality play, was started. Rumors flew thick and fast, and the Collector of the play became a rapid-fire cartoonist, producing caricatures of Messrs. U. N. Bethell, F. H. Bethell, Kinnard, Crosman, Driver, Nowell, and Hayward which were drawn on an elevated board in quick succession, much to the amusement of everyone, perhaps even to those caricatured.

During the evening there were a number of songs in which everyone joined, including an original one entitled "The Lineman Bold," and sung with great gusto by A. Silverman.

There was no toastmaster, but P. C. Staples, who acted as starter for the "Stunts Committee" with the aid of a racetrack gong and large announcement cards, summoned various officers to "run the next race." At his request short talks were given by Messrs. F. H. Bethell, Thurber, Huntington, Driver, Crosman, Nowell, Hayward and Kinnard.

A reproduction of the dinner, with names of the officials and guests, will be found in this issue.

Some Phases of the Pension Plan

(Continued from page 1)

have been made to obtain accommodations in a larger hall, and one with more comfortable seats and better ventilation. It is expected that the new hall, arranged to accommodate 1200, will be jammed at these other meetings as noticeably as has been the present hall during the two meetings just passed. Wardrobe accommodations, upholstered seats and a room to accommodate the members both before and after meetings in order that they may become better acquainted, are among the provisions of the House Committee. The "amen" corner is banished by special edict of the society's Board of Directors. In the new reception room there will also be something to smoke and a committee to make the members feel at home. Not, by all means, least is the Special Committee to arrange for music at these meetings. Those who can sing or play on any instrument or who know of others are urged to forward their names to P. C. Staples, Acting Secretary of the society, in order that the music may begin at the February meeting.

"Our society in size and in date of founding is the *second* of its kind in this country. It is intended to make it the *first* during 1913 in programmes, membership and attendance."

Generous applause greeted Mr. Kilpatrick's talk as he concluded.

J. M. Repplier then introduced the speaker of the evening, Mr. T. P. Sylvan, Secretary of the Employees' Benefit Fund Committee of our Companies.

In part, Mr. Sylvan said that our Pension Plan is not to be considered as a charity in any particular. "It is made possible only by our own loyalty and efforts toward our Company's success. While it was slow in coming because an effort was made to bring in all of the Bell Companies, it is the most comprehensive from the very fact that all associated companies have been included. Through this very fact, also, all employees may improve their knowledge regardless of the territory in which they may work and may increase their ability to serve the public. Were it not for

the part of the A. T. & T. Co. there would have been an injustice created, as employees transferred from older to newer sections would have been unable to reap the benefit of long years' service. Now they may be transferred as needed and the A. T. & T. Co. stands as a backer in insuring their receipt of all benefits regardless of the locality to which they may be assigned.

"The funds for maintaining the system will be set aside from the surplus that the telephone employees themselves have helped to earn by giving better service."

Mr. Sylvan said that he had decided not to go over the details of the plan, because these had been distributed in booklet form and could be read at our leisure.

"All over the country newspapers have hailed it as a proper move with practically no word of criticism. All societies of employees have passed resolutions commending the plan.

"Whereas it was originally intended to eliminate the granting of disability benefits to employees who had been in the service at least two years, supplemental provisions have been made whereby those of less than two years' service will be taken care of provided they show a disposition to 'stand by the ship.' In other words, all who are intending to render their best aid to the service will be considered as part of the Bell Family and will be treated accordingly.

"Including the regular plan and the supplemental plan, every employee from the highest to the lowest is now cared for." Here the speaker digressed to say that after his talk had concluded he would invite questions and would attempt to answer them in order that all might be enlightened on any points that had come to their notice.

"The pamphlets which were prepared are for our own information and the card issued by the Committee is intended to aid us in compiling our own histories in the telephone work for reference as changes develop in handling the fund. The routine calls for the forwarding of this information through the offices of the officials so that they may add any information at their disposal.

"Having the plan, therefore, what are we going to do with it? We, of course, appreciate that the responsibility in connection with the telephone business rests not with the stockholders nor bondholders, but with ourselves as employees. It may not be generally known, but it is a fact that 50 per cent. of all telephone revenue is used in the payment of salaries and less than 19 per cent. is returned to stockholders and bondholders. The responsibility, therefore, for the upkeep and good service furnished by this entire system lies with those who come in contact with the public."

The speaker then quoted from Mr. Vail's report referring to Public Service Commissions, and said that we must all look forward to an enlightened public opinion of all matters pertaining to our business. If the public opinion is wrong, our actions are wrong in allowing it to remain so. It can be molded and it is our duty to see that the correct impressions remain with the telephoneusing public. The perpetuity of any company depends upon a satisfactory public opinion. Every employee would have to bear his or her share in the event of this public opinion being unfavorable. The Pension Plan is not an added burden to be borne by the public, and the public should be made to feel this fact to be true. We shall be better citizens. We shall furnish better service. We shall make the public reap the tenfold return in a higher grade of service which we shall render in our unquestionable loyalty to the Company and to the public.

"Every employee who is called upon to engage any kind of help, or assistants, has now an added responsibility in that with this excellent plan of pensions, disability benefits and insurance in effect we must secure a higher average type of recruits to the Bell ranks. This is not only true as to positions of comparative importance, but should be true of the most menial positions, such as janitor or scrubwoman; for surely inasmuch as the wages paid by the Company compare with any other industry, the added fact that such employee will be taken care of in case of accident, sickness or old age, and in case of death have something paid to dependents, must of itself enable us to attract the very best grade of labor.

"The whole plan may be likened to a cooperated insurance company, for every employee has an interest in not only his own efficiency, but in the efficiency and loyalty of every other member; and surely no employee should take into the service or the so-called 'Bell Family' any person who would bring discredit to the Company, and render more difficult the continuation of this fine welfare work.

"We have shown that our minds are broadening to our responsibility; in other words, we have made a good start. We must keep it up.

"It is further understood that there must be annual appropriations made by our Company to keep this fund intact, because the interest on the original fund would not be sufficient to bear any great proportion of the amounts needed. Therefore, we must help our Company to continue to earn the funds which will be returned to us as beneficiaries. It is not enough for us to feel successful, nor is it enough to have the public feel that our Company is successful; we must make it a reality. We have a fine body of men, and I must say an equally fine body of women. We must make the public feel that our Company is serving it efficiently and well. We cannot work in the Telephone Company which has such broad principles underlying it without being better citizens and more tolerant of the shortcomings of those with whom we come in contact.

"We have induced our stockholders to set aside some of the money which we ourselves have earned in order that our dear ones may be cared We are almost forced to become better employees and better citizens. Criticisms will be heard which seem just. Why should we not, then, come to our superior officers and get their opinions and rectify these wrongs? We must let no one drift on thinking that our Company is willing to remain in the wrong, nor must we let any apparent unfairness become more serious. We must let no grievance go over our heads to Commissions or other bodies through failure on our part to report them at the proper time. I do not want to give a wrong impression of my idea of the work of Commissions, for I feel that they are doing their best in a difficult work. However, we must let it be known that we rectify errors ourselves, and that we do so as soon as we can without leaving any opportunity for further criticism or delay of any kind. The officers of this Company are broad and aim to represent it before the public in the same whole-souled, generous way that its head has displayed in the inauguration of this most comprehensive and generous Pension Plan. In order to show you how thoughtful our Company's officials are in the behalf of all of us, I will say that these same men, who arranged the details of the original plan, are now working on a supplemental plan by which employees may save a part of their earnings in order to help themselves when their age might make that a difficult matter.



"This saving plan in all of its details will be explained in due time to all of us.'

When Mr. Sylvan concluded there were questions by the members on (1) what constitutes continuous service, (2) a possible change by an employee of the beneficiary, (3) the question of payment to families where the employees during their lifetimes had not contributed to the family income, and other points of general interest. In all of these questions Mr. Sylvan said that the Committee would be as generous and as fair as experience would dictate to be to the best interests of all of the employees. For that reason he wished to emphasize particularly the filling in of the cards now in the hands of all employees with as much detail as is obtainable.

Those who commented on the address other than by asking questions were Messrs. Nowell, Hayward and Kinnard. Mr. Nowell said that some time ago he had occasion to go to City Hall, Philadelphia, at the time that an important Pennsylvania compensation act was being framed. Mr. Nowell said that he was surprised to find how little the other companies had been doing toward the payment of salaries and expenses during disability of their employees. It served to emphasize how much our own Company has always done. He mentioned the fact that New Jersey had what was considered a liberal compensation act. The Pennsylvania one proposed was more liberal than even the New Jersey one then in force. Returning to his office he became interested in finding out just how much our Company had been doing for its employees and how such an act would affect its payments. He discovered that during 1911 our Company had paid \$52,000 in salaries and expenses during such misfortunes, and in ten months of 1912 \$45,000. In 1913 it is estimated that under the voluntary Pension Plan our Company will pay \$105,000, or over twice as much as was done under our very liberal plans of both 1911 and 1912.

After commenting on the enormous amount of investment necessary to carry this fund, he called attention strongly to the fact that it was not created "out of air" by a vote of the directors, but, as one of our Pittsburgh employees stated. "it amounts to a raise in pay for every one of us." In fact, we must feel that every such increase in salary is an earnest expectation on the part of our Company for future performances and is not given on account of past deeds.

Mr. Hayward, as a member of our own Committee of Safety, was next called upon and said that the whole Pension Plan as he looked at it involved higher bogie scores to be met by all of us. He emphasized the competition which would have to be met when new applicants and when graduates of the schools and colleges began to look around among the possible chances for employment and discover the liberal Pension Plan, including all of its supplemental parts, offered by the Bell Telephone Companies. He said that it would not only affect the young men and young women graduates of the schools, but it would make better employees in every department through this one point of competition.

Beginning his remarks, Mr. Kinnard humorously referred to the men who were seated on the platform as the "gentlemen of the jury." commented, among other things, on Mr. Sylvan's particular fitness for this work. He said that he had known the speaker of the evening for many years and had found that he had two hobbies-(1) that of treating the public well and (2) that of treating employees with equal fairness. In urging the men to work for advancement, he said that the case with all of us is parallel with that of the farmer who decided that he would not be satisfied until he had acquired all of the land abutting his farm.



Mr. W. D. Gay before The Northern Pennsylvania Telephone Society

On Friday, December 20, Mr. W. D. Gay, General Manager of the Commonwealth Telephone Company, spoke before The Northern Pennsylvania Telephone Society at Wilkes-Barre, Pa. He spoke at length on "The History of the Commonwealth Telephone Company." This Company is one of our largest connecting companies and Mr. Gay covered the history of the Company thoroughly from its formation to the present time. Mr. Gay said in part:

"The first evidences we have of special telephone activity in the territory now served by the Commonwealth Telephone Company is on May 6, 1898. It was 1902, however, before a stock company was formed, and it was given the name of the Center Moreland and Luzerne Telephone Company. At the same time it was voted to purchase a line running to Lockville, Pa. By April, 1912, a large number of applications for service had been received and the need of metallic circuits and long-distance connections was badly felt. Negotiations were at once started with The Pennsylvania Telephone Company and, after voting to change our lines from grounded to metallic circuits, we signed an agreement with that Company dated November 15, 1902. We soon found it necessary to increase our rental charge from \$5.50 to \$12 per annum. From now on the Company grew rapidly. An exchange was established at Dallas, a trunk line bailt to Tunkhannock, and our capital stock increased to \$15,000. In 1904 we purchased the Northern Tier Telephone Company and the Factoryville Telephone Company, and in 1905 The Northern Lackawanna Telephone Company operating between our Factoryville line and Scranton. In 1906 a traffic agreement with The New York Telephone Company was signed providing for connections through Brooklyn, Wyalusing, New Albany and Towanda. At this time (1906) our capital stock was increased to \$100,000 and we purchased a lot and building at Factoryville for storage purposes. We next turned our attention to the territory north of Tunkhannock and, after a hard fight, got exchanges established in Meshoppen, Mehoopany and Lacevville. Soon after the establishment of these exchanges we purchased the Meshoppen & Auburn and the Wyoming & Sullivan County Telephone Companies, thus securing practically entire control of the telephone business in the northern part of the county. In 1907 these extensions made it necessary to further increase our

capital stock, this time to \$200,000. We next merged with the Loyalsock Bell Telephone Company, and began operating this new territory January 1, 1908. At this time we purchased from the Bell Company several important trunk lines through our territory and all our switchboards which had been furnished by the Bell Company, and from this time on purchased our material directly from the Western Electric Company. In August, 1910, we acquired from The Bell Tele-phone Company of Pennsylvania the telephone plant serving Montrose, and were promised the rest of Susquehanna County as soon as an inventory of the plant could be made. The same year we purchased the New Albany Telephone Company and The Wilmot Township Telephone Company and Telepho pany, and early in 1911 the Laceyville, Spring Hill and Stevensville Telephone Company. In order to swing these new purchases we increased our capital stock to \$500,000, where it remains to-day.

"In December we started to conform our collection routine to that of the Bell of Pennsylvania. This necessitated an immense amount of work. but the increased satisfaction of our subscribers and of ourselves, once the system was fairly established, easily justified this trouble. On July 1, 1912, we acquired the remainder of Susquehanna County, and we can now boast of 19 exchanges and 4000 subscribers. In addition we are giving service to five connecting companies. We own and operate 850 miles of pole line with approximately 2275 miles of wire. This plant serves all of Wyoming, a good portion of Susquehanna, the northern part of Luzerne, the northwestern part of Lackawanna, the southeastern part of Bradford and the eastern half of Sullivan Counties. Our general offices are located at Center Moreland, Pa., although we have in addition five local commercial offices in different parts of the territory, each in charge of a Local Manager. All the Bell Telephone men I have met have been, without exception, jolly fellows, enthusiastic about the telephone business, and I am sure that our relations with The Bell Telephone Company will be just as pleasant in the future as they have been in the past."

Francis Blake

Francis Blake, inventor of the Blake telephone transmitter and Director of the American Telephone & Telegraph Company, died in Michigan a few days ago, aged sixty-three years.

As is quite generally known in the telephone field, he was one of Mr. Bell's associates in the pioneer days of the telephone. "The History of the Telephone" refers to his work as follows:

"Fortunately there came, in almost the same

mail with Bell's letter, another letter from a young Bostonian named Francis Blake, with the good news that he had invented a transmitter as satisfactory as Edison's, and that he would prefer to sell it for stock instead of cash. If ever a man came as an angel of light, that man was Francis Blake. . . . It encouraged the few capitalists who had invested money, and it stirred others to come forward. The general business situation had by this time become more settled, and in four months the company had twenty-two thousand telephones in use and had reorganized into the National Bell Telephone Company, with \$850,000 capital and with Colonel Forbes as its first President."

Again Mr. Casson refers to Mr. Blake as a man in Boston who changed a microphone into a practical transmitter.





Atlantic District

From an Ocean City hardware company, in whose window our local representative lately arranged for a telephone display, this letter was received:

Delaware & Atlantic Tel. & Tel. Co., Atlantic City, N. J.

(Attention Mr. C. B. Smith)

Gentlemen:—We wish to thank you for the display which you so kindly loaned us for our window here, and also for the kind, courteous treatment and cooperative spirit with which your Mr. F. L. Howe has favored us. We believe this window display will be to the mutual benefit of The Bell Telephone Company and ourselves.

Again thanking you, we remain,

Very truly yours,

Read-Paiste Hardware Co.

D. P. Paiste, Jr., Manager.

HALL.

Camden District

In Woodbury many local calls were made in quick succession on Christmas Day from a public



The Board of Education of Woodbury, N. J., solicited our aid in the erection of a flagpole on the grounds of the North Woodbury School.

E. C. Masters, Wire Chief, arranged to have Foreman Dudley bring the automobile truck into service, and the pole was placed in a very commendable manner.

Fitting exercises attended the flag-raising by the scholars. A handsome flag, the gift of little Mildred Pine, a pupil in the school, was raised by her, assisted by Master Masters, also a pupil in the school and the son of the Woodbury Wire Chief.

The pupils of the entire school marched out and sang "America" and afterward gave the school salute. Supervising Principal Dixon and members of the Board of Education made addresses, and at the meeting in the evening the Board of Education authorized the secretary to thank The Bell Telephone Company for its part in the programme.

Not knowing how odd it sounded, a multiparty line subscriber between Woodbury and Thorofare, N. J., reported trouble on the line and defined its location as "the other side of "H"! There are eight subscribers served by the line and the reporting subscriber's letter is "H."

A Woodbury subscriber evidently remembers his obligation as a result of good selling by representative S. H. Croxton:

"Please pardon oversight in December. The bill has been lost, and without it before me as a reminder it entirely slipped my memory until late in the month.

I will endeavor to keep track of it in the future. Thank you for your courtesy in the matter. This, by the way, we have received from you at all times.

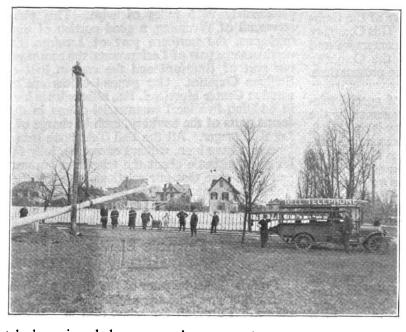
Yours, ——."

Another subscriber—this one in Camden—writes:

"The service which we have been receiving of late has been highly satisfactory, both as to courtesy and promptness.

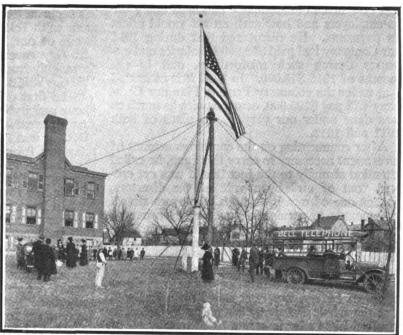
With the compliments of the season, I am, Yours very truly,

One hour after a memorandum form had been prepared for service in a house quarantined on account of scarlet fever, the station was placed on the window-sill of the house. When our employees withdrew, an occupant of the house took in the telephone. Wire Chief Coombs did a very creditable job. [The method of installation in a quarantined house was described and illustrated in the January 1, 1910, issue of our paper.]



Flag-Raising
at
Woodbury, N. J.
Camden
District

(See description above)



telephone in a lodge room. Arrangements were made in advance so that the calls were ticketed and the money was deposited after the calls were completed. The secretary then wrote to our Company:

D. & A. T. & T. Co., Woodbury, N. J.

Gentlemen:—On behalf of the Christmas Cheer Committee of the Moose Lodge of Gloucester County I desire to extend to you our sincere appreciation for the aid rendered us on Tuesday last in the distribution of our cheer baskets to the worthy poor of Gloucester County.

Wishing you the compliments of the season, I beg to remain,

Yours very truly,

Salesman McArdle superseded direct line service with one extension station to a private branch exchange with five stations, and changed the Camden Lodge of Elks from other service to a direct line with one extension station.

The Camden Business Men's Association conducted a telephone campaign in the interest of the merchants of that city. This letter to our Traffic Supervisor followed shortly afterward:

December 14, 1912.

Mr. D. W. Figner,

D. & A. T. & T. Co., Camden, N. J.

Dear Sir:—On behalf of the Merchants' Publicity Committee we wish to thank you for the unusual interest you took in helping along our recent effort to stimulate buying in Camden through the campaign of telephoning. The committee, Messrs. Blake and Castor, report that you showed many courtesies beyond those which might have been expected in your official capacity, indicating your personal interest in our behalf.

I take pleasure in letting you know that we are not unmindful of what you have done and ask you to accept our sincere thanks.

> Very truly yours, Merchants' Publicity Committee.

The H. Raymond Staley Food Company requested a salesman to call and get an order for an extension station. Salesman Colsey came back with an application for a No. 2 private branch exchange of two trunks and five stations.

WRIGGINS.

Dover Sub-District

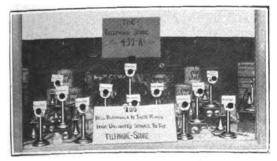
A woman in one of our small Delaware towns has recently discovered a most effective method of knowing the whereabouts of her husband when out of town. It appears that this man is somewhat of a "jiner" and takes advantage of invitations to enter all kinds of social clubs and fraternal societies. It naturally follows that he receives many invitations to banquets, etc., held in a near-by city. These social doings generally are finished by eleven o'clock. Promptly at the close of the festivities the husband calls his wife on the telephone, and she keeps him talking until he has just time enough to catch the midnight train for home. While this method is a little expensive it is effective.



West Chester District

A subscriber of Mendenhall, Pa., told our salesman that he cleared \$100 on a deal he put through over the telephone.

Mr. E. B. Darlington, President of the National Bank of Kennett Square, Pa., recently had an c.:tension telephone installed at his home, when he was confined to his bed owing to a slight illness. Mr. Darlington met our salesman a few weeks later and was very loud in his praise for the Telephone Company's promptness and good service during the time he was ill. He said he transacted all of his urgent business over the



Another Ocean City Window

telephone from his bed and kept things running along smoothly. He has since recommended our extension service to several of his friends.

The local gas company in West Chester, Pa., put out an advertising circular attached to the December 1 bills that read as follows: Telephone or Write."

GREENFIELD.

Wilmington District

A Government official overheard a conversation wherein a subscriber was making a compliment to a clerk in the business office. His comment afterward was that if all corporation employees were as courteous as those of The Bell Telephone Company, sentiment would favor public service corporations. He said that personally he had had better treatment from the Bell telephone employees than from those of any other corporation with which he had business.

The following private branches have been O.K.ed in the Wilmington District within the past few days:

Hotel DuPont, 600-line switchboard equipped for 300 stations. At present 235 are in service; The Harlan & Hollingsworth Corporation, an

80-line board with 75 stations, displacing a private system of 40 stations;
The Hercules Powder Company, a 30-line

board with 20 stations;

The Atlas Powder Company, a 30-line board with 20 stations.

On hand for completion in the near future are the following: One No. 1 private branch, 80line board with 30 stations, for Cassiday's Hotel; No. 1 private branch public telephone system, 30line board and 25 stations, for Hotel Merritt; and a combined private branch telephone and telegraph board for the Western Union Telegraph Company.

With the completion of the Holly Oak exchange a No. 2 intercommunicating system of nine stations in the residence of John J. Raskob will be O.K.ed; also the same type of service with six stations in the residence of Richard Sellers.

Salesmen Beatty and Hanly sold the Hotel Wilmington private branch service of 25 stations. CHAMBERS.

Defective Vision

(Continued from page 1)

tion of mental vision. That is a function just as essential to our wellbeing as physical eyesight and equally susceptible to defects. Fortunately, however, it does not have to be corrected by visible methods.

Imperfect eyesight may be due to any number of causes, but each kind of imperfection has its own symptoms, some of which we use for the purpose of expressing a mental condition such as "short-sighted," "lack of vision," etc., even going so far as to say that a person is mentally cross-eyed. Astigmatism is a defect which prevents a proper focus of the object looked at; as a result, the object is not clearly seen and frequently assumes a distorted shape. For example, take the most clever story ever written, remove all punctuation and marks of proper composition, then read the story to someone and see if he can get sense out of it. If we read the routines, rules and regulations under which we work in a like manner, or without a clear conception of their need and a mental picture of the results to be obtained, we cannot hope to make anyone else understand them or realize their importance in our plan of opera-tion. That is the first symptom of "mental astigmatism," and is a bad handicap for the most important part of our work, our relations with the

There is no time when keen, unimpaired mental vision is more necessary than in dealing with the public. It is not only vital that we have a thorough grasp of the Company's attitude, but we must also be able to see the subscriber's point of view. One would not expect any person to agree with him concerning the beauty of a sunset if the associate persisted in looking towards the east. Incidentally, if you saw nothing but the sunset, you would not know where he was looking.

It is of course essential at all times to get the subscriber's viewpoint. A person may be said to be mentally cross-eyed when he sees only the two extremes of a proposition, and does not see the middle course or one directly before him. The subscriber asks for something that is impossible within routine. The employee attempts to enforce the extreme routine which he thinks covers the case, and misses entirely a routine straight ahead which would completely satisfy the modified demands of the subscriber. For example, on election night a number of business men were using a public station with a coin-box, located in the fashionable clubroom of the town, to receive election returns. The pockets of the users became depleted of change, whereupon the leading spirit, who happened to be also the leading business man of the town, asked to have all calls charged to his residence telephone. This of course could not be done without executive sanction. It was suggested as a middle course to ask Traffic Department to remove temporarily the automatic visual, write tickets, collect the money the next day and drop in coin-box with the operator on the line. This cleared the difficulty and everyone was happy.

Of those who are mentally near-sighted, we will discuss only two types; the first I am sure will have our undivided sympathy, while with the second type I feel that our sympathy should be extended to their successors.

As to the first type, I refer to the unfortunate individual whose affliction does not permit him to see beyond his own job. In that close range his vision may compare favorably with anyone's, but his inability to see beyond the confines of his own job and get a focus on the details of a better one is a serious bar to promotion.

The other type is the individual whose nearsighted vision gives him a focus on his nose first and other objects afterwards. In other words, his mental vision is so directed that he sees himself first in everything. This type is well exemplified by a remark attributed to an emperor some years ago, the substance of which was that "Me and God" were running the affairs of a certain country.

I don't wish to convey the thought that any telephone man would have such a sacrilegious idea; he certainly would omit any mention of the Almighty. I am not trying to describe the boaster, the individual who talks long and loud of mostly what he is going to do, but which generally fails to appear upon the daily or monthly reports. Persons of this class do no actual damage, unless it be to themselves; on the contrary, they frequently act as a tonic in quarters where a tonic is needed.

The really undesirable type is the one whose constant aim is the building up of a personal equation at the expense of his associates, and to the detriment of the Company's policy. For instance, the Company has spent, and is still spending, thousands of dollars in an effort to acquaint the public with the broad and liberal policy which underlies the whole scheme of operation, but nevertheless the public in general has no concrete idea of the Company's policy except as it is acquired by dealings with the Company's representatives. Therefore it becomes comparatively easy for the unscrupulous employee to appropriate the Company's policy as his own, and hand its benefits to the subscriber as a personal gift. The net result of such practice is a general impression that might be summed up like this: The Telephone Company is like all other corporations. It will skin you if it gets the chance, but Mr. Doe is a good fellow and honest; if you go to him he will treat you all right. When we realize that to assume ownership of the Company's policy and dispense it as a personal favor is robbing the Company of a justly earned right to the public goodwill, we can regard it in no other light than as a form of dishonesty which is, unfortunately, proof against a traveling auditor's check.

I don't want to be misunderstood as advising against personal popularity. On the contrary, it should be the aim of every representative of this Company to make himself strong with the public, so strong that when he explains the Company's policy, the explanation, backed by his personal equation, will carry conviction.

In conclusion, a clear mental vision is necessary in the work of bringing the public to a point where it can see the policies of the Company in the same light as we do.

The organization routine charges the Commercial department with the responsibility of building up a favorable public opinion; this is, in a measure, "taxation without representation." We are taxed with the responsibility without representation in the Plant and Traffic departments, who are equally responsible for the moulding of public opinion, for, after all, no corporation is better than its employees, and, in the eyes of the public, they, the employees, are the Company.

It is well to remember that our Company is the pioneer in the now general movement for better relations between buyer and seller; so general, indeed, that even life insurance companies have taken it up. Trade journals, and those published in the interest of public service corporations, all teem with the same idea of relations more frank and cordial with the public. We, as members of the Bell Family, can say with pride, "We started —but don't lose sight of the fact that it is "up" to each one of us to keep it up.

Digitized by GOOGLE

Dinner

Given by the Officials

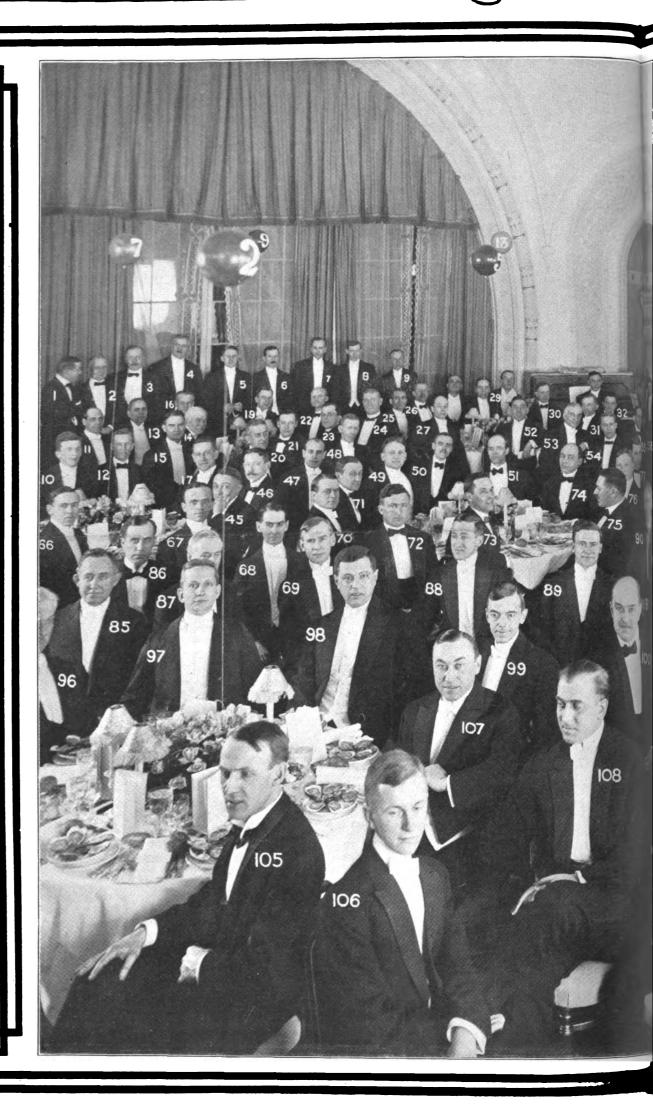
of

The Bell Telephone

Company

of Pennsylvania

1. Ford Huntington 2. G. J. Elliot
3. J. S Francis
4. W. S. Peirsol
5. H. Boulter
6. F. C. Malatesta
7. J. D. Ferry
8. J. W. Wright
9. W. Zerman
10. F. T. Ewing
11. A. E. Powell
12. S. H. Moore
13. L. H. Kinnard
14. F. Taggart
15. E. P. Bardo
16. J. H. Barry
17. W. F. Repp
19. E. B. Zerman
20. J. L. Swayze
21. S. F. Stringfellow
22. C. C. Brown
23. D. C. Hosfeld
24. W. J. McLaughlin
25. M. B. Stallman
26. T. Wistar, Jr.
27. E. B. Tuttle
29. F. I. Daly
30. W. A. Eipper
31. T. H. Griest
32. D. W. Figner
33. D. C. Unningham
37. J. H. Hons
38. R. Hawkey
39. R. A. Hartz
40. M. E. Lescure
41. J. L. Kilpatrick
42. F. W. Figner
43. P. C. Staples
44. C. Wahl
45. C. E. Rolfe
46. R. S. Henderson
47. E. J. Nathan
48. H. R. Roney
49. W. B. Clarkson
50. P. C. Kramer
51. W. W. Young
52. H. D. Uhl
53. S. E. Tinkler, Jr.
54. E. W. Evans
55. C. E. Booser
56. J. S. Wiley
57. J. H. Boeggeman
58. J. Robb
59. W. P. Poole, Jr.
60. C. G. Tatnall
61. S. P. Grace
62. N. Hayward
63. J. C. Nowell





Bellevue-Stratford Hotel Philadelphia Friday Evening January 14, 1913

64. R. M. Ferris
65. H. Mathews
66. C. R. Fairchild
67. W. R. Driver, Jr.
68. J. S. Beckman
69. G. A. Carey
70. S. E. Gill
71. F. H. Bethell
72. C. Godfrey
73. H. C. Kunkel
74. A. D. Merrick
75. W. T. La Roche
76. C. B. Smith
77. R. J. Meigs
78. F. L. Rawson
79. L. P. Lanthier
80. A. E. Berry 77. R. J. Margo
78. F. L. Rawson
79. L. P. Lanthier
80. A. E. Berry
81. G. S. Reinoehl
82. B. C. Jutton
83. B. Stryker
84. J. W. Reed
85. C. A. Patterson
86. P. O. Coffin
87. J. M. Creamer
88. R. T. Wilson
89. T. F. Swords
90. P. W. England
91. H. B. Porter
92. H. A. Trax
93. F. W. Griffin
94. J. E. Kennedy
95. T. P. Sylvan
96. C. A. Janke
97. W. T. Westbrook, Jr.
98. W. C. Hartranft
99. A. B. Detwiler
100. F. C. Moody
101. H. F. Thurber
102. P. E. Tillson
103. W. P. Norris
104. G. D. Heald
105. E. J. Speh
106. A. M. Kite
107. T. B. McClain
108. H. W. Peacock, Ir.
109. J. Gibson
110. O. K. Tabor
111. A. H. Osterman

Performers and others not in the photograph:

R. L. Barrows
J. M. Brown, Jr.
F. B. Evans
G. E. Gable
W. P. Hull
C. O'D. Lee, Jr.
F. P. Meigs
C. L. Meixel
J. M. Repplier
A. DeB. Robins
A. Silverman A. Silverman



Philadelphia's Newest Hotel

The Ritz-Carlton

■HE Ritz-Carlton, Philadelphia's newest hotel and the youngest member of a family of twenty-one hotels and restaurants flying the Ritz-Carlton flag, was opened to the public December 14. The first impression the hotel building gives is one of extreme narrowness. Perhaps we can appreciate the difficulties which the architects and builders had to surmount if we consider that it was necessary to build an ultra-modern seventeen-story hotel on a plot of ground just thirty feet wide. Both inside and outside of the hotel are finished in Adam style. The materials used in the building are pink Milford granite for the base, with Indiana limestone to the third floor. Above this is a combination of large-size red, rough bricks and ornamental terra-cotta.

The ground floor of the hotel is devoted to the lobby, the men's lounge or buffet, the administration offices, cigar and news stands, and retiring rooms for men and women. On the first floor below there are the Café Parisien, retiring rooms, barber shop and serving pantries. In the subbasement are the rooms for wine storage, cold storage of provisions, and washing and tempering the air supplied throughout the house. The cellar floor is occupied by storerooms and mechanical equipment, including boilers, filters, house pumps, together with machinery for vacuum cleaning, ice making and pneumatic tubes. The bakeshop is also located on this floor.

On the first floor above the ground are the Palm Room and the restaurant, and on the floor

above this the kitchen. The private offices are on the mezzanine floor, and the third floor is devoted entirely to supper rooms which may be cut off from each other for small parties or opened into one large room for gatherings of a greater number. The six floors above this are fitted up as bedrooms for guests,-six bedrooms to a floor, there being a bath-room and two reception salons in each suite. The Ritz idea, which was originated by Cæsar Ritz, a Swiss peasant farmer, is distinctive. It is in decoration to combine extreme simplicity with the utmost comfort, and to supply the best possible cuisine and service.

Very naturally a hotel of this sort which considers the comfort of its guests of prime importance has thoroughly adequate telephone equipment. There are two private branch exchanges located in the hotel. The one of the hotel proper has 10 trunk lines to the Walnut central office and serves 75 stations. Standard desk sets have been used throughout the hotel in place of the usual hotel wall set. 50,000 calls annually were contracted for prior to the opening of the hotel.

The second and smaller branch exchange is in the name of the Springer Ticket Agency, which has a stand in the hotel lobby. It is served by 2 trunk lines, and has 3 stations in the hotel and 9 stations at as many theaters in various parts of the city, thus assuring prompt service to its patrons. Telephone orders are welcomed and a goodly part of the agency's business comes in over our wires. There are tie lines running from the exchange of

the hotel to that of the ticket agency, and to the exchange of the American Taxicab Company at 1441 Locust Street. Public telephone booths may be found on the ground floor and in the Café Parisien, directly opposite the elevators. These are "built in" and harmonize thoroughly with the general decorative scheme.

Exterior of
the Ritz-Carlton
Hotel and
Three of the
Specially Constructed
Booths on the
Street Floor

Work of Bell-Grow Club

In December over \$1900 worth of net new business was obtained from suggestion slips forwarded by the employees in Reading, Shamokin, Mt. Carmel, Lebanon and Pottsville.

At Reading these employees aided:

Commercial Department: Ethel Bicking, May N. Brown, Esther H. Wrener, J. L. Printz, Carrie M. Shirk and J. M. Hykes.

Traffic Department: E. W. Ulle, E. Haring, S. H. Urian, E. Witmer, Ella E. Weaver, Helen E. Miller, Helen Steve, Edna Fair, Elsie C. Hughes, H. Cruse, Irene Barr, I. M. Pflugfelder and C. W. Dieffenbach.

Plant Department: H. O. Hohl, E. P. Laird, Sam Beggs, G. C. Kessler, H. Frederick, W. A. Fegley, M. M. Kline, S. D. Yoder, C. W. Dieffenbach, T. H. Groninger, M. Frederick, H. T. Albright, W. L. Nagle, C. W. Symons, Allen L. Shome and Herbert Friese.

At Shamokin there were suggestions from: Traffic Department: A. Koch, M. Zimcoller, Gertrude Evans and Estella Rohrbach.

Plant Department: Harry T. Morgan.

At Mt. Carmel two Traffic department employees helped: Mary Davis and Margaret Mc-Andrews.

At Pottsville:

Plant Department: J. B. Masser, Jas. Sisk, H. A. Boughter, R. Durkin, P. L. G. Hasskarl, H. D. Hohl and L. McMillan.

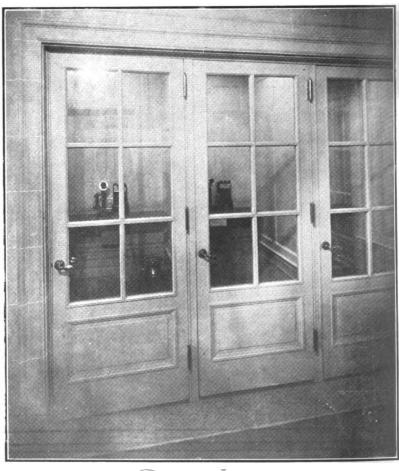
Traffic Department: Anna Folk, Mirian Houser, M. Siebenkaes, Mary Downey, Ruth Yocom, Helen Wilson, Margueire Yocom, Harriet Wagner and Adelaide Brown.

At Lebanon:

Traffic Department: Maud Turner, Lillian Heilman, Clare Matthews, Laura J. Eiler, Margaret Mack and Mabel Beck.

Plant Department: Robert Bressler, H. H. Harp, Wm. Burkhard and G. Levengood.

Commercial Department: M. L. Kerr and G. U. Schock.



New Business

In Philadelphia 300 suggestion slips (Form p141) were filled in by Plant and Traffic department employees and forwarded to the Commercial department. From 118 of these new business was obtained, there being 93 Plant and 25 Traffic slips productive of immediate results. Probably number of the others will bring future subcribers not now ready to sign applications.

Those of the Plant who took the trouble to forward these were: F. Smith, Jr., J. Harron, J. C. Alexander, W. E. Kahl, H. Hinde, F. T. Hindle, H. Snyder, A. T. Whitney, W. A. Saunders, J. E. Weil, J. D. Pertle, T. Laugenslauger, C. H. Dunfee, R. Long, W. Cousart, H. A. Woodruff, H. C. Hartpence, G. H. Quinn, C. H. Mott, H. E. Paulus, R. Moore, J. W. Tobin, H. Peters, W. Bainesderfer, C. E. Baker, L. W. Pangborn, H. Kayser, J. M. Stuart, A. W. Diller, A. J. Juhner, W. Armand, T. H. Pyle, P. W. England, H. Rainey, Jas. L. Green, L. H. Bach, E. H. Rowlet, J. Henry, J. McCloskey, W. K. Hoyer, B. Fraul, L. Metzger, E. L. Cleary, C. B.



Operator of Private Branch Exchange Ritz-Carlton Hotel

O'Connor, D. Luhlig, Jas. H. Peirce, F. Taggert, W. A. Scheibler, J. Ritchie, E. W. Langhead, J. Sweeney, A. M. Bird, C. F. Eswald, J. J. Gimbel, D. Bolder, J. M. McGraff, M. Constantine, H. Hendricks, T. J. Barry, N. B. Dorward, C. Idell, E. Leach, W. Lloyd, W. Rahn and H. F. Rodd.

From their suggestions additional business neting \$2229 annual revenue was obtained.

Of the Traffic employees these forwarded suggestion slips:

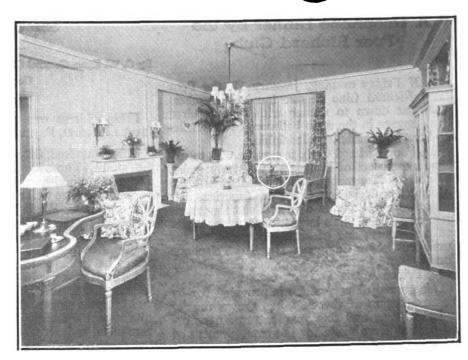
M. A. Donoghue, H. W. Peacock, Paul Nicoldsé, L. Fitzpatrick, A. T. Monroe, A. Schmidt, Gibson, Huehl, Agnes Mulhern, Hannah Strain, Vm. Strowalter, N. Saller, Catharine P. Hill, Anna E. Cornish, May A. Lanahan and K. E. Veaks

From their reports \$746 worth of net new reveue was obtained.

Compared with former months there was a stal of \$2975 in December from these slips, while he best previous record totaled \$1010.

A
Desk Type
Telephone
in
Every
Ritz-Carlton

Room



In the Harrisburg Division, December brought a generous amount of revenue from suggestion slips forwarded by our employees to the Commercial department. They were as follows:

From Carlisle, G. R. Keim, Plant department, 1 station;

From Harrisburg, 24 stations were obtained from slips sent by Ruth Addams, E. H. Bitner, R. Caton, P. H. Chadwick, Margaretta F. Etter, Florence L. Feass, W. Fitzpatrick, Florence Gingrich, C. E. Hammil, Imogene I. Malaney, Jeanctte B. Niforth, Florence Orth, H. C. Pollock, E. A. Rohrer, John Rupp, Helen C. Schmidt, Pearl Seiders, H. W. Stewart, S. E. Fitting and Roy Stambaugh;

From Lancaster, 14 stations were "signed" as the result of suggestions by A. G. Palmer, S. S. Farver, W. Horn, E. P. McKinney, K. Wendel, M. May Beachman, T. Powl, S. P. Wiley, S. T. Sekinger and J. E. Immel;

From Waynesboro, R. Wolf and H. Thompson sent slips totaling two stations, and from York, G. N. Moyer, W. R. Fields, and Fannie Hengst aided with three additional stations.

The total revenue obtained due to these "other department" employees is \$945. Some of the slips brought prospects for additional equipment and better grades of service.

Visit Central Office

For some time we have done our best to make it plain that everyone is cordially invited to visit our central offices. Acting upon this policy the Principal of the Philadelphia Trade School wrote our Company requesting that he be allowed to bring the Senior Class of the school to our Woodland central office. He named a convenient day and hour. A reply was immediately dispatched by the Traffic department to the effect that both the Traffic Supervisor and the Wire Chief would be on hand to meet the class and explain thoroughly the work of their departments. class spent nearly an hour at our central office and seemed thoroughly interested. The following letter was received in reply to the letter of the Traffic Superintendent that the visit had been arranged for:

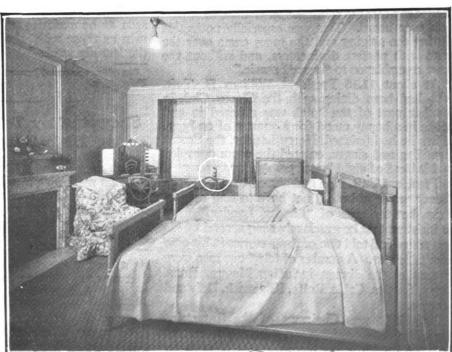
Mr. W. W. Young, Traffic Superintendent, The Bell Telephone Co. of Penna.

My dear Mr. Young:—Thank you for your letter in which you give permission for our Senior Class to visit the Woodland central office at 1.30 o'clock on the afternoon of Friday, January 10. These shop visits are of great value to our young men.

Respectfully yours,

Wm. C. Ash, Principal.

Not Only
Private
Salons
but
Sleeping
Rooms
Equipped
at the
Ritz-Carlton



Digitized by GOOGLE

A Telephone Dinner by the Poor Richard Club

N Friday evening, January 17, the Poor Richard Club of one hundred members sat down to dinner with two hundred guests in the main ballroom of the Bellevue-Stratford Hotel, Philadelphia.

The Poor Richard Club. it may be well to explain, is composed of Philadelphia men who make, buy and sell advertising, and is affiliated with the Associated Advertising Clubs of America. Its roster shows the names of the advertising managers of Philadelphia's largest department stores and newspapers and of such enterprises as the Curtis Publishing Company, The Bell Telephone Company and firms which produce Fels Naptha Soap, Prince Albert Tobacco, etc.

This annual dinner, which is provided for by the constitution of the club, has grown rapidly in importance, and this year extraordinary arrangements were made for the entertainment of the members of the club and their guests.

Each of the three hundred diners who sat down to this annual feast found beside his plate a watchcase telephone receiver connected by special circuit with transmitters in a room in the office of the Joseph Morris Music Company in New York City. A force of twenty-five men had worked busily for two days under the supervision of H. Mouradian, Engineer of Transmission and Protection, and E. B. Tuttle of the Engineering Department.

Immediately after dinner Mr. Mayer M. Swaab, Jr., the head of the Chicle combine and President of the Poor Richard Club, proposed a toast to Franklin. The lights in the ballroom were all extinguished and a large bust of Franklin placed over the head of the speaker, and 300 replicas of this bust on as many menus shone forth with a phosphorescent and uncanny glow.

At the invitation of Mr. Louis J. Kolb, the toastmaster of the evening, speeches were made by ex-Senator Lafayette Young, Herbert M. Casson, well known to all telephone men, Dr. Martin G. Brumbaugh, and many other notables. At various intervals sandwiched between these speeches the toastmaster would invite those present to take up their telephone receivers and listen to a speech by Fire Commissioner Johnson of New York or Senator Charles A. Towne, or to a song by John Hendricks or Max Rogers of Rogers Brothers fame. Those who were at the dinner say that the transmission was the most perfect ever heard. This was especially noticeable during the singing and the tones came over the wire with perfect distinctness, and without the least resemblance to "canned music."

At about 11.15 President William H. Taft,

At about 11.15 President William H. Taft, who had been dining with the Clover Club in another part of the hotel, was ushered in and spoke in a happy mood for a quarter of an hour. When he had finished, Harry Lauder, the Scotch comedian and singer, entered the room preceded by his band of eight bagpipers and was presented to President Taft. He had agreed to come to the dinner provided he did not have to sing or perform, but the cries of "Lauder, Lauder!" were so insistent that he graciously sang several of his best songs and told two or three stories in his own inimitable way. A number of telephone men were present at the dinner, including Messrs. Hons, Berry, Staples, Gable, Rolfe, Kilpatrick, Daly and Lincoln

Mr. Gable was Chairman of the Entertainment Committee which arranged this dinner, and designed the attractive menus.

Safety First*

By C. W. Egan, General Claim Agent, B. & O. Railroad Company

[This address was reported in shorthand by Jacob L. Gwirtz, Paymaster's office, Philadelphia.]

Three hundred fifty enthusiastic men braved the storm, Thursday evening, January 16, to attend the monthly meeting of The Spare Pair Society and were well rewarded by the interesting talk of Mr. C. W. Egan, General Claim Agent of the Baltimore & Ohio Railroad Company, on 'Safety First" and the valuable demonstrations of First Aid methods. Mr. Egan called the attention of his audience to the astounding loss of life which each year has to be charged to carelessness. He stated that during the year 1912, in the railroad business alone, 3500 were killed and 136,000 injured and disabled. In the industrials, 35,000 were killed and over 3,000,000 injured. The fact that nearly every time a man is killed or injured a green man is put in his place, thus increasing the risk of the other men, was emphasized. "In preventing accidents," said Mr. Egan, "there are two things which must be observed; the first is, don't take chances, and the second, observe the Company's rules to the letter. I have found many railroad men who have said, 'Why, if I observed all the rules I couldn't get the train over the road on time.' I presume that some of you might say, 'If I observed all the rules I wouldn't get the line constructed nor the telephone installed on time.' But if you want to get rid of a rule the best way is to observe it and it will soon get rid of itself."

Mr. Egan then showed by means of a stereopticon a number of pictures, most of which had been taken by him, illustrating the manner in which accidents had happened and exactly in what position the injured man or men were found after the accident. At the conclusion of his address Mr. Egan was given a rousing round of applause.

After Mr. Egan had finished Dr. Shields gave his practical demonstrations of First Aid methods with the aid of a corps of five men, consisting of one captain, two operators and two subjects. The demonstration was watched with a great deal of interest and a number of questions were asked. In closing, Dr. Shields said: "In my three years of first aid work in the United States, during which I have met nearly one thousand people in all branches of industrial work, I have never before seen as appreciative and cooperative a body of men as those with whom I have had to deal in the last six weeks."

*An address presented January 16 before The Spare Pair Society, Philadelphia.

Shopping by Telephone and the High Cost of Living

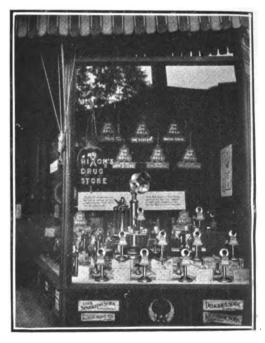
"That marketing by telephone has had anything to do with the increased cost of living is emphatically denied by the merchants of Williamsport, Pa.," says a Williamsport evening paper. "'We are just as careful about a telephone order as we are about one which comes to us from the buyer right here in the store,' said a retail grocer. 'In fact we are even more cautious, because a shortage or defect detected in goods ordered by telephone can be at once blamed on us, as the buyer was not present to see it prepared. The same thing is true of butchers. They know that many women weigh the meat which they purchase on

their own scales and that trouble follows if the weight is short. They also send them the meat they ask for, and if the order is for the best, they send the best.'

"Another argument advanced in accusation of the busy housewife as a contributor to the high cost of living is that in ordering articles by telephone she misses the advantage of seeing the competitive prices of the other grocers. Grocers questioned on the subject say that there is a great uniformity of price. There is but little competitive pricing and similar commodities are the same price in nearly all stores.

the same price in nearly all stores.

"For all of which opinions Williamsport housewives who don't like lugging market-baskets and Williamsport husbands who like the task a great deal less, and have, incidentally, faith in their grocers and butchers, are, it is to be supposed grateful."



Hixon's Pharmacy, Royersford, Pa.
Norristown District

Business Office Removal

On February 6 the Germantown Business Office at 26 West Chelten Avenue, Philadelphia, will remove from the present location to the Western Union Telegraph office—almost diagonally across the street at 5 West Chelten Avenue.

It is interesting to note that the original Germantown central office was at 8 West Chelten Avenue, directly across the street from the Western Union offices.]

Our business office will remain at 5 West Chelten Avenue about one month, during the necessary alterations of our Company's building, when both the Western Union and our offices will occupy the enlarged quarters at 26 West Chelten Avenue.

The room will seat 1200. Query.—How many will it stand? We refer to the Scottish Rite Hall, Broad and Race Streets, Tuesday evening, February 4, at eight o'clock, when our President will address The Philadelphia Telephone Society. Of course YOU'LL be there.



Butler District

Several Butler District salesmen on presenting their cards to prospective subscribers have been told that the doorbell was working perfectly and that their services would not be needed. "Bell System" in the upper left-hand corner seems to be the source of the misunderstanding.

The new private branch exchange which was recently installed for the Pennsylvania Salt Manufacturing Company at Natrona, Pa., is giving excellent satisfaction. As a result of it ten members of the company have signed applications for telephone service in their residences.

A severe snow and wind storm visited Butler and vicinity January 3. During the afternoon and evening traffic on railroads and trolley lines was greatly delayed.

The Pittsburgh and Butler Street Railway Company (Butler Short Line), operating interurban cars between Pittsburgh and Butler, probably suffered the greatest inconvenience,—cars being delayed as long as four and five hours, due principally to the route of line being through a hilly section of country.

The car on this line due in Pittsburgh at 7 P.M. encountered many snowdrifts, one of which it was unable to get through. The result was that it was compelled to stay in the drift for a period of four hours until the road could be cleared by another car and a gang of workmen.

During this time passengers on the car, of which there were approximately twenty-five, realized that friends in the city would become alarmed at their non-arrival. The result was that a near-by Bell telephone was pressed into service and anxious friends were advised of the condition of affairs.

Erie District

An employee of the Company, the other evening, overheard the following conversation between two salesmen who cover nearly the same territory and who carry the same line of goods:

"You 'put one over' on me to-day," said one. "How do you mean?" replied the other.

"This morning when I saw you in Erie you asked me where I was going to-day. I told you Corry and Union City. Then you sat down there in Erie and closed deals with nearly all my customers by long-distance telephone so that when I called on them they had no need for any of my goods. You can rest assured that you will not get an opportunity to repeat this little deal, for I will use the long-distance telephone myself the next time."

Johnstown District

"Ah is a laundry lady and Ah wants to 'sure you, sah, that I couldn't get 'long 'thout ma Bell telephone nohow. All ma customers they's got Bell 'phones, and most all ma business do come in that way. Ah tell you what, ma Bell telephone am surely a necessity in ma business."

So said a colored patron in Johnstown to one of our representatives who had been making an inspection the other day.

The past few weeks have been rather disastrous on account of the number of fires occurring in the Greensburg Sub-District. In addition to the fire at Latrobe, Pa., which was mentioned in the

January 15 issue, there have been fires in Jeannette and Greensburg.

In Jeannette a 50-pair cable was burned for two sections, affecting 35 lines, 76 stations and one cable terminal. The fire started at 4.30 A.M., and at 6.30 P.M. the same day all stations had been restored to service.

At Greensburg likewise a fire in an old stable badly damaged a 50-pair cable. The fire occurred about 10.30 P.M., and by midnight men and material were on the scene of the fire. 42 lines and 83 subscribers were out of service. Twenty feet of 50-pair cable had to be replaced, and by 3 A.M. all the cable had been spliced in, the lines were working, and switchboard trouble was cleared. Considering the fact that the fire was eight o. ten blocks from the office, and that no one was actually on duty when the alarm was given, four and one-half hours' time is a good record for repairing the damage done.

New Castle District

The Warren (Ohio) office has started the new year well by securing applications for P.B.X. service from the following firms: the Trumbull Steel Company, 2 trunk lines, 22 stations; the Warren Iron & Steel Company, 2 trunk lines, 6 stations; and the General Fire Extinguisher Company, 5 additional stations.

Manager McAdams has secured an application from the City of Niles, Ohio, covering the installation of seven police telephones to be located in various parts of the city. This will give the Bell subscribers police protection and should enable us to secure many new subscribers.

During the month of December a contest for the lowest percentage of lost call business was carried on between the Rochester, Wheeling, Washington, Pittsburgh Toll and New Castle offices. Rochester took first place and now has a large Pittsburgh pennant hanging in the retiring room as a trophy. Its percentage was 75 per cent.

On December 24, 1912, New Castle exchange had the best "Toll Day" in its history. Out of 335 calls the operators completed all but 22. The percentage of lost calls was 6.1 per cent. for the day. The best previous to that date had been 8 per cent.

Pittsburgh District

A request for a new telephone directory was made by a Pittsburgh subscriber not long ago in a rather unique way. It follows:

A book! a book! My kingdom for a book! To hang upon a little hook Would be the thing, and quite correct For your subscribers to direct. The ones I have are worn with age, There's hardly left a single page. Just note this fact and please remember I've been neglected since last November. I try the patience of 'Information,' Ouite frequently I say '-Now with this request so humble Won't you kindly take a tumble That a directory I need?-The one I have has gone to seed. Now it is surely up to you To send a new book through." (With no apologies.)

Friday 13.

The Pittsburgh Cashier recently received a letter from a man in New York City asking for a bill for the balance due to April 1, 1913, for telephone service. Due to a prolonged serious

illness he had not been able to pay the bill. The bill was immediately forwarded and two days afterward a check was received in full.

One Pittsburgh subscriber who is discontinuing his business writes, in his letter asking to have the service discontinued, that he has enjoyed good service for ten years.

Employees who make good impressions for themselves do the same for the Company. The following letter recently received in Pittsburgh shows that one of our salesmen has succeeded in impressing at least one customer favorably:

"There is a young man in your Contract department, Mr. ———, for whom I want to say a good word. Commendation may be unusual, but for the good of the service I believe it is equally as important as criticism. My personal experience prompts me to say that Mr. ———— is efficient, painstaking and courteous."

The C. D. & P. Tel. Co.,

Seventh Avenue, Pittsburgh.

Gentlemen:— Please explain why you cut off my telephone. Am doing business with your Company for a number of years and bills have been paid regularly every two months. Last bill was paid in November, and according to custom you would receive your regular check next month. Seems somebody is prematurely perniciously officious.

Respectfully,

"Jan. 8th, 1913, Pitts., Pa.

Dear Sir. I have had a call from Point Marian and I want you to send me a slip of the price it costs. My telephone No. is ———. I want you to please send me a man because I want a dislimited telephone. The one we have is ailimited. Yours truly,

Good Bye."

Uniontown District

There has never been a telephone in the ticket office of the B. & O. Railroad at Morgantown, W. Va., and the patrons of the Telephone Company frequently complained of not being able to get information concerning trains, etc. The Transportation Committee of Commerce took the matter up and wrote a long letter to the Assistant to the President of the Railroad Company in Baltimore, which resulted in a request by telegraph to have a direct line installed in that office. The following notice appeared in one of the daily newspapers:

"Telephone Installed In An Hour.

"Bell Company Makes Record With Instrument for B. & O.

"One hour after the Pittsburgh office had instructed Manager F. R. Dunning, of the local branch of The Bell Telephone Company, to prepare contracts and install a Bell telephone in the B. & O. passenger station, the instrument was in operation. The Pittsburgh office of the Bell Company was notified at 4.30 yesterday afternoon from the B. & O. headquarters at Baltimore to install the instrument at once. Mr. Dunning was called at 4.45 and at 5.45 the telephone was in operation."

One enterprising grocery firm in Uniontown has been making extensive use of the telephone cuts furnished by the Company for advertising purposes. It has not only used these cuts in the daily newspaper advertising, but is distributing weekly by hand a thousand cards which give the



prices on specialties. The cuts are changed weekly, with the wording always at the head "Telephone Your Order."

One of the strongest arguments of a telephone salesman in approaching a resident prospect is the value of the service in cases of emergency. A recent incident of how this argument stuck in the prospect's mind occurred in Monessen, Pa. This man had been approached frequently, but after having experienced the necessity of getting up in the middle of the night and going for the doctor in a case of sickness in his family, he telephoned for the salesman and asked that a telephone be installed at once.

The Amos Telephone Company, located in Marion County, W. Va., and connecting with our system at Fairmont, W. Va., declared a semi-annual dividend of four per cent, on January 1. This company was organized in February, 1910, and operates 350 stations. The company is unique in this respect, that it confines its owned plant to the limits of the town, and of the 350 stations operated it owns only 100, all of these being served from cable. The plant serving the remaining 250 stations is owned and maintained by farmers on a basis somewhat similar to our Plan "A" agreement. The population of the area served by the company's owned plant is approximately one thousand, making a development of approximately one station to each ten persons, which is unusual with connecting companies.

Underground cable has been placed throughout the downtown section of Brownsville, Pa., and the Plant department is now cutting the overhead into the underground. The business portion of Brownsville is congested in a section, between the river and a creek, known as the "Neck." and the removal of this Company's poles from this street will improve very much the appearance of that congested section. Our Company has placed the first wire ever put underground in this town.

The C. D. & P. Tel. Co., Clarksburg, W. Va.:

We want to thank your Company for the trouble in connecting our building with the Fire Department. This kind of treatment is such that we will not forget it. If all large corporations would pursue the policy of your good Company there would certainly be very little reason for complaint.

Yours, The Hornor-Gaylord Co. By F. C. Gaylord, Manager.

MISS HEPPLEWHITE.

Wheeling District

One of our large retail stores is responsible for an "ad" appearing in the Wheeling papers that at first glance seems to be for the sale of telephone service but upon perusal reveals a keen appreciation of the Telephone-Parcel Post "combination."

The "ad," which is headed in heavy-faced type, reads as follows:

TELEPHONE

Distance is no longer a barrier between the homes of other towns and this store. Free Parcel Post delivery and free telephone service make shopping possible although a customer lives one hundred and fifty miles away.

We will give prompt attention to such orders, forwarding by return mail. Simply call Wheeling 1902.

In publishing the following from an expression received by the Wheeling Traffic Supervisor it may be well to mention that the untiring efforts of the New Martinsville operators should receive credit for the resultant force of well-trained employees. Their efficiency is best demonstrated by the following:

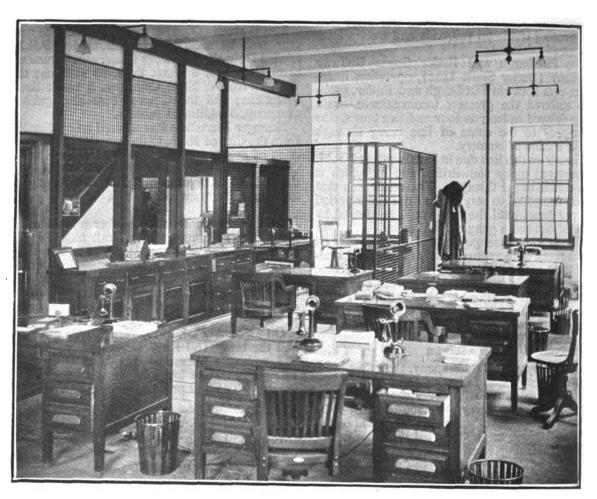
"When The Bell Telephone Company purchased the Enterprise Telephone Company of New Martinsville it also acquired the entire force of operators. At this time but one of the old Bell employees remained, leaving the new force practically in charge of the work. The type of board, rules and method of operating were entirely new to us, and apparently all must be learned at once successfully to carry out the work. Complaints seemed numerous, but we soon learned that the public seldom complains without cause and that each complaint must be given careful attention.

directory discloses the information that Charles Dickens is selling insurance of every description. Mr. Dickens' card advertising insurance also evidences the fact that directory advertising is a business medium to be reckoned with.

St. Clairsville, Ohio, boasts a man who has lunched à la Telephone-Parcel Post. Leaving for work in a neighboring town, the parcel containing his lunch was forgotten. Hurrying to the Post Office, his wife mailed the parcel and then telephoned him where a lunch would await a hungry man.

A postcard without a street address—intended for someone in Wheeling whose name was illegible—reached its destination through Bell telephone number 1693 being shown on the card.

Alone in her home situated in the hills back



Joint Telephone-Telegraph Office, Clarksburg, W. Va., Uniontown District

"Through all we have learned that our greatest help lies in courtesy at all times.

"Under the old régime the method of completing toll calls was very poor, a call seldom being tried unless a patron asked for a report. We have been doing some very earnest work in completing toll calls. During one week we have a record of 1001 completed and 65 lost calls. We have a total of 351 stations and average about 1900 local calls daily. We have every reason to believe that New Martinsville has bright prospects in the telephone world and we are going to try and make the year 1913 a most successful one."

"Look on bottom of page 26 of your Bell telephone book." This is all that appears on postcards mailed by someone in Bellaire, Ohio. If your curiosity prompts you to investigate, the of Scio, Ohio, Mrs. E. Sampson, who is seventy-six years old and an invalid, discovered that the house was on fire. The flames spread rapidly. Realizing the futility of an unaided attempt to escape, she slowly made her way to the telephone and spread an alarm. Neighbors came to the rescue as quickly as possible and carried her out in safety. Five minutes later the house collapsed, taking with it the entire contents, which included a volume of family records dating back over a century.

MISS DIEHL.

When our PRESIDENT speaks the room will be filled. Be among those who are to be photographed February 4, Scottish Rite Hall, Broad and Race Streets, southwest corner. Come promptly at EIGHT o'clock.



The following District Correspondents to THE TELEPHONE News have been appointed in the Harrisburg Division: Allentown District, G. W. Wolf; Reading District, J. M. Hykes; Scranton District, L. Smithing; Wilkes-Barre District, A. W. Shafer.

Allentown District

The value of telephone service was again demonstrated during the week at the Easton City Hospital. One of the outlying buildings which is connected with the private branch exchange, which was installed recently, caught fire. A nurse by the aid of the telephone called the fire station, the chemical engine responding at once, and the flames were extinguished before they had succeeded in making any headway.

WOLF.

Harrisburg District

An example of prompt installation of telephone service at York was given December 21, when Salesman Bell called upon Mr. Geo. B. Coleman at 9 A.M. The prospect was induced to sign an application for Bell service after having fully made up his mind to take other service.

The following complimentary letter was received at the York Business Office from Mr. Coleman:

Mr. John Foster Bell,

York, Pa.

Dear Sir:—I want to thank you for being so prompt in installing my telephone.

You called on me at 9 A.M. to get my order for the telephone, and at 12 noon I was using it.

Very respectfully, (Signed) Geo. B. Coleman, Sales Agent, General Electric Co.

Scranton District

Ten days prior to the holiday season about fifty of the leading stores in Scranton displayed Bell telephone desk sets in their show windows, with neat little cards attached by red ribbon bows. The card displayed the number of the store's telephone and a catchy little phrase calling attention to their particular line of goods, and imparting the fact that the public could order by Bell Telephone.

The window display in the Hotel Jermyn Drug Store was especially attractive and the subject of numerous comments. A large Blue Bell shade suspended from the center of the ceiling and a number of desk sets distributed about the window among the Christmas gifts connected with the large bell by red and green ribbon bows.

We had numerous requests to allow the desk stands to remain for a few days after the holidays.

The display about town was so striking that a new subscriber asked to have the set displayed in his window so that the public would know he had Bell service.

Wilkes-Barre District

Numerous unsuccessful attempts had been made to supersede a Bloomsburg merchant from a four-party to a direct line. This was finally accomplished, when he complained that he had missed a train by reason of waiting until one of the other parties on his line had finished a conversation.

Mr. W. E. Bonning, washery foreman for the Kingston Coal Company, applied for telephone service. On account of excessive construction cost, however, we could not give him service at the regular rate. Rather than do without Bell service he decided to move to another location where we had plant facilities.

"Emergency. Seven men badly injured. They are at the Kulpmont Land Office. Call physicians"

This call came into the Mt. Carmel exchange on the morning of January 7, when seven carpenters, engaged in the erection of the M. H. Kulp Memorial Chapel, Kulpmont, (a small town located about three miles from Mt. Carmel), were dropped to the ground, a distance of forty feet, by the collapse of a scaffolding.

The operator first called the First Aid to the Injured Corps of the Mineral Railroad and Mining Company, who were on the ground and administering first aid five minutes after the call was made. She then called the different physicians in Mt. Carmel, who arrived some twenty minutes later.

The next call was for the ambulance at the Shamokin State Hospital, which was soon on the scene of the accident.

The Agent of the Kulpmont Land Company called at the Shamokin Commercial Office that evening and stated that the service between Shamokin and Mt. Carmel on the above emergency call was the finest piece of work he had ever witnessed. He also desired to convey his appreciation and thanks to the operators at Mt. Carmel and Shamokin for their promptness and initiative.

Williamsport District

Salesman J. Guy Wolf, at Williamsport, while soliciting in the western part of the city for new business, visited a residence in the course of construction to find who was going to occupy it when completed. While making inquiry from the workmen employed there, he talked telephone service to the plumber and painter, and finally succeeded in getting applications from both for residence service.

A clerk in the Commercial Office at Williamsport recently had a telephone installed in her residence, and after the service had been installed but a few days she remarked at the office that the telephone had earned a year's rental by the service it had rendered that night. The house had been broken into by a burglar; the police department was called by telephone and the burglar captured almost immediately.

The Senior Class of the Sunbury High School was shown through the Sunbury central office, and the occasion proved to be a great success. The Sunbury Local Manager arranged with the Superintendent, through the Principal of the High School, to have the Senior Class, seventythree in number, report at the Sunbury central office in three sections. Each section, under the leadership of one of the faculty, was entertained for a period of one-half hour, during which time the Local Manager explained, briefly, the history of the telephone and its many advantages from a commercial standpoint. After that the Traffic Chief Operator explained, in a very interesting manner, the traffic side of the work and the importance of the public's assistance in the giving of good telephone service.

The interest shown by the students was indeed surprising and gratifying. The High School faculty was very much pleased, and we have since

Blue Bell Costume



The accompanying reproduction from a photograph of Miss Nellie Cadden gives Miss Cadden's original idea of costume at a masquerade ball, held at the 13th Regiment Armory in Scranton. In it she became the most prominent woman present, taking first prize for her very unique costume. The Blue Bell cigar bands which formed the yoke of her dress, the fan which she carried. and the hundreds of little bells worn made her a tinkling advertisement of the Bell telephone, besides being the "Bell of the ball."

In working out this idea Miss Cadden called at the Commercial Office and the assistance given her in selecting advertising matter enabled her to

carry out her plan very successfully. The Company's seal cut from blotters was used very largely, also bells cut from fans rendered the dress worn by Miss Cadden very novel. The mask worn was covered with little celluioid Blue Bell pins, and in every detail Miss Cadden carried out her idea using forms of Bell telephone trademarks.

been requested by the Principal of the Commercial School to arrange an early date to entertain the commercial students and explain the relationship of the commercial work in connection with the telephone work in general.

The visitation of the High School students to our Sunbury central office received many favorable comments, not only from the students but also from the newspapers, the parents of the students and the public in general. As a result of the above-mentioned visit we have already received an application for telephone service from one of the High School professors.

A Telephone Auction Sale

In Chambersburg, Pa., they hold auction sales by means of the telephone, and do it successfully, too. A Chambersburg attorney wished to dispose of the property of a client who had died a few days before. He knew of two prospective purchasers, one living in the same and the other in a near-by town. He took the first one to his office, called up the one who lived out of town and started the bidding, which lasted some time. The property was quickly disposed of in this manner at a price satisfactory to both buyer and seller.

Smoke? Come to Scottish Rite Hall, Broad and Race Streets, and see the reception and main audience rooms provided by The Philadelphia Telephone Society. The speaker, orchestra and glee club on February 4 deserve your interest and presence.

Our Societies

Camden Telephone Society

Friday Evening, February 20.

Speaker: J. M. Repplier, Atlantic Coast Division Manager.

Subject: "Rights."

The Trenton Plant Club

Thursday Evening, February 13.

Speaker: Joseph H. Carroll, Chief Clerk to Plant Superintendent Eastern.

Subject: "Accounts Chargeable."

The Philadelphia Telephone Society

Scottish Rite Hall, S. W. corner Broad and Race Streets.

Tuesday, February 4, 8 P.M. sharp.

Speaker: Mr. F. H. Bethell, President.

The subject will not be announced until that evening.

The I. O. U. Telephone Society

A new telephone society has been organized by the Plant employees in Pittsburgh embracing all lines of plant work, inside, outside and underground. The officers elected were:

P. K. Bender, President; A. P. Beattie, Vice-President; R. B. Bowden, Secretary and Treas-

The first regular meeting was held January 17, with about 110 present, when F. K. Singer, Plant Instructor, Pittsburgh, read a paper on "Transmission," followed by an instructive and beneficial discussion.

It is planned to hold the meetings of this societyonce each month in the Jenkins Arcade Building.

The Telephone Society of the Greensburg Sub-District

The first meeting of The Telephone Society of the Greensburg Sub-District was held on December 11 at 8 P.M. Twenty-two employees of the Plant department in this territory were present. E. E. Fitzpatrick was appointed temporary President and J. E. Colborn temporary Secretary. A general discussion was held on the subject of "Twist Troubles." It was voted to hold another meeting in January.

The Transposition Club

At a meeting held in Hotel Henry, Pittsburgh, Pa., on January 16, 1913, J. D. Gordon, Plant Supervisor, Wheeling District, read a paper on the subject of "Irregularities."

The New Castle Telephone Society

At the January meeting there was no particular subject or speaker, but a lively general discussion was held on pertinent subjects.

At the Counter

This conversation occurred in one of our business offices:

Subscriber: "I want my bill adjusted. You have me charged with too many calls for _____. It was my dullest month and it would have been impossible for me to use the number of calls charged."

Clerk: "Sometimes our subscribers use the telephone extensively during dull seasons to boost their businesses. Perhaps you or your assistants did it this year."

Subscriber: "Young man, I'm an undertaker!"



New Sign, South Wall General Office Building, 1230 Arch Street, Philadelphia Measuring 24½ Feet in Diameter and Visible from Busy Market Street

Collection Efficiency Per Cent. of Amount Outstanding to Total Amount Billed for Current Month

DECEMBER, 1912

PHILADELPHIA DIVISION

Collection Office Per Cent.
Philadelphia .25.2
Germantown .26.7
Chester .32.1

ATLANTIC COAST DIVISION

| Norristowii |
|------------------|
| Doylestown |
| Trenton |
| Dover |
| Dover |
| West Chester29.2 |
| West Chester |
| Camden |
| Camden |
| Bridgeton |
| Atlantic |
| Atlantic |

| Harrisburg Division |
|---------------------|
| Wellsboro 2.0 |
| Ridgway |
| Lancaster 5.5 |
| Altoona |
| Lewistown |
| Huntingdon |
| Carlisle |
| Bloomsburg |
| Allentown |
| Bethlehem14.5 |
| Sunbury |
| Rerwick |
| Pittston |
| Faston19.0 |
| Bellefonte |
| Vork |
| Honesdale |
| Williamsport |
| Lebanon |
| Reading18.8 |
| Scranton 20.0 |
| Towarda20.7 |

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| Collection Office | Per Cer | ٦ |
| Wilkes-Barre | | |
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| Carbondale | 22.7 | - 1 |
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| Clearfield | 25.1 | Ì |
| Waynesboro | 25.4 | d |
| Pottsville | $\frac{26.9}{-}$ | P |
| Nanticoke | 28.3 | y |
| Uagloton | 29.3 | |
| Harrisburg | 29.9 | |
| Chambersburg | 31.8 | 1 |
| Emporium | 33.8 | |
| Crest Land | | |
| PITTSBURGH DIVISION | 100 | |
| Warren, Pa | 10.3 | |
| Bradford, Pa | 10.7 | |
| Greensburg, Pa | 100 | 1 |
| Latrobe, Pa | 19.5 | 1 |
| Cambridge, O | 13.1 | - |
| Morgantown, W. Va East Liverpool, O | 20.4 | |
| East Liverpool, O | 22.9 | ' |
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| Salem, O | 97 | 1 |
| Uniontown, Pa | | ! [- |
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| Marietta, O | | - |
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| Warren O | $\dots 35$ | .4 |
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| Clarksburg, W. V | $\dots 43$ | .J |
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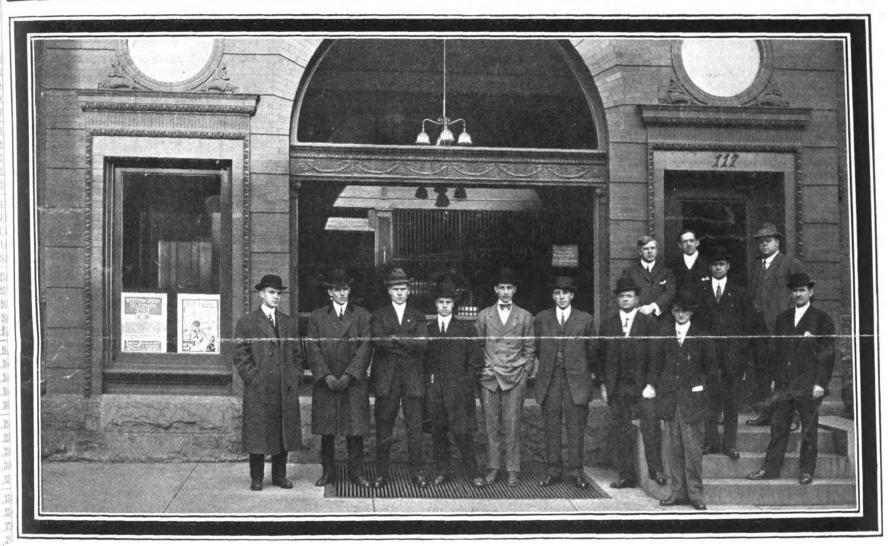
The Telephone Operator in "Movies"

Washington, Pa.....49.1

Meadville, Pa......85.

In a Market Street, Philadelphia, motion plure theater a film is being shown which illustrathe part the telephone, and more particularly telephone operator, plays in preventing robbet and how quickly they both respond to calls help. The film, which is called "The Telepho Girl and the Lady," shows a woman whose ho is entered by a burglar calling for help over telephone, and how the operator speedily calls police and the neighbors, finally preventing attempted burglary.





Some of Our Scranton, Pa., Employees E. G. Simons M. E. Morganthal, D. F. Kelly, H. F. Smith, H. F. Weber, F. W. Stalheber, J. J. Becker, T. F. Brown L. Smithing W. Fitzsimmons

Scranton, Pa.

By H. E. Ward, Local Manager

\CRANTON is a city of no small proportions. Lying in the northeastern section of the Keystone State, in the midst of beautiful mountain scenery, and with its many commercial tivities and a population of nearly 200,000, it n well be termed the metropolis of Northeastern ion mnsylvania. Situated as it is in the midst of lust anthracite coal region, Scranton has enjoyed lat tomparatively rapid growth that has been withal obesubstantial one.

The pure air of the Wyoming Valley renders eleptranton one of the most healthful cities in the se mited States. Its death rate is unusually low, overing only about twelve per thousand of inhabit-The health of its people is also due, in some tingeasure, to the pure water supplied from the ar-by mountain streams. Within the city limits

(Continued on page 5)

Our President in Philadelphia

ETWEEN 1300 and 1400 men surprised the officers and committees of The Philadelphia Telephone Society, Tuesday evening, February 4, by responding in such crowds. A record attendance was expected, but the committees could hardly have hoped that approximately 75 men would be required to stand in the gallery and 100 more in the main audience floor! The query on page 12 of our last issue, referring to the standing capacity of that hall, was noticeably recalled by a group of members when so many were seen without

Altogether the efforts of the main and auxiliary membership committees have been rewarded. It was a proud night for President Kunkel when he recognized that over double the attendance of

(Continued on page 3)

Wheeling District Flood Troubles

IGH water on the Ohio River during January caused much telephone trouble in the cities and towns along the river. The accompanying photographs show more clearly than any story could against what the plant forces had to contend.

An overabundance of rain caused high water all along the banks of the river. In parts of Pittsburgh, boats floated about in the streets, reminding one of Venetian scenes. Traffic was

greatly retarded. The further you went down the river the

greater was the rise in the water. Wheeling was seriously affected by the high water. Early in the morning of January 10, a 400-

pair cable leading to South Wheeling failed, throwing about 400 subscribers out of service.

(Continued on page 14)



THE TELEPHONE NEWS

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania
The Central District & Printing Telegraph Company
The Delaware & Atlantic Telegraph & Telephone Co
The Diamond State Telephone Company

F. H. BETHELL, President
FORD HUNTINGTON, Vice-President
L. H. KINNARD, Second Vice-President and General Manager
W. S. PEIRSOL, Sec'y and Treas.
S. WILEY, General Auditor
S. H. MOORE, Counsel
J. H. CROSMAN, Jr., Gen'lCom'l Sup't J. C. NOWELL, Gen'l Sup't of Plant
W.R. DRIVER, Jr., Gen'lSup't of Traffic, N. HAYWARD, Engineer
P. O. COFFIN, Auditor of Receipts
E. C. WILEY, Auditor

Managing Editor, E. H. HAVENS, 17th and Filbert Streets, Philadelphia, to whom all communications should be addressed

SUBSCRIPTION PRICE:

To employees of the above Companies - - NO CHARGE
To employees of OTHER BELL COMPANIES,
payable in advance
\$1.50 per annum

Vol. IX FEBRUARY 15, 1913 No. 4

The Value of Getting Acquainted

IN our own as in all large businesses, we may point to many a man high in the line of organization who has set a conspicuous example of wide personal acquaintance with the employees under him, from his immediate subordinates even to the humblest employee. That he is able to call so many of his co-workers by name has been, we may rest assured, no unimportant factor in his business success.

To the District Manager or Wire Chief, to the accountant or lineman, the importance of this may perhaps not loom so large; but surely it's too important and its accomplishment too pleasant and easy to be overlooked. A telephone officer, who has had a Pioneer's experience, says: "A definite image of the person to whom you are talking over the telephone helps wonderfully." Let's get that definite image of the persons to whom we continually or even occasionally talk and write, and even of the persons whom we just hear about. How? Well, the telephone societies afford one way; you can suggest for yourself sufficient others.

Service Helpers

AN we wonder at the success in station gains, being met in various districts of our territory, when we read of the enthusiasm shown by men and women in every department in forwarding prospects? They fill out the little blank forms provided for that purpose and let the men whose duty it is use their experiences in closing the sales of service. Some of the memoranda state the best times for interviews, and many more of them name the people qualified to sign applications.

Late issues of our paper have listed groups of employees at Reading, Shamokin, Mt. Carmel, Lebanon, Pottsville, Harrisburg, Lancaster, Carlisle, Waynesboro, Philadelphia and other places.

The total of revenue obtained will add many thousands of dollars to the Company's annual receipts. Further, there will be larger amounts saved by the new subscribers than there will be net revenue obtained by the Company by reason of their having service.

When such encouraging numbers of our workers are taking the trouble to forward these slips, as at present, we may hope for most decided gains in revenue for 1913. Those who know of prospects will reap a double reward in the satisfaction of having aided the Company—aside from regular duties—and in having conferred a genuine favor upon the telephoneusing friends of these who were formerly without sevice.

Those Commendatory Letters

SOMEONE says,—"Why do you print so many 'Thank you' letters for good service and quick installations? Aren't those acts the simple duties for which we—as public servants—are paid?"

We answer here that the answer is partly discoverable in an analysis of the second question. Our employees are paid for doing their work well and promptly, but, at times, the circumstances warrant immediate action. That in turn necessitates thorough familiarity with various other phases of the business and unusually quick and trying efforts on their part. They would be justly credited with satisfactory work if they took the orders and suggestions each in turn and accomplished all with reasonable speed. But when occasion demands it, they display willingness to serve the users and carry out the message-to-Garcia spirit regardless of their own comfort. Sometimes this response costs the Company heavily in proportion to the immediate returns, but the cool judgment of these workers weighs the conditions and thereby aids in furnishing assistance worth perhaps a year's service charges to the patrons.

These acts—by no means always acknowledged in written form—are capital to our Company as to any company anxious to bear its responsibility. When the letters come, unsolicited as they always are, they tend to show the impression which the work of our employees is creating. Therefore they are of decided benefit to others with like duties and deserve a place in our paper.

Who Died?

N item in a newspaper of local circulation read as follows:

"While James Brayne was out in his buggy the other day taking his large goose to market, he had his dog 'Cap' under the seat and his horse became frightened at a bog wheeling another boy in a wheelbarrow. He began to turn from side to side and suddenly he barked, scaring the goose so he flew out. He then ran away, upset the wagoo and threw him out, striking on his head. He then uttered one sound and died."

If Mr. Brayne had died, who would have remained to report the event? Local readers, however, knew the history of the dog so well that they overlooked the local contributor's faulty wording. They knew that the dog was the he that met with such sudden death.

In our work great definiteness and accuracy are essential. Titles, just now, are in our minds. We were reminded of that newspaper item when we saw a letter addressed to one of our titled men by a man in another department. It had the family name correct, but both initials were wrong as well as the title and street address. There is no such title as that used.

While letters are sometimes dictated in haste, to stenographers unfamiliar with all of the titles, they should not be signed until they have been carefully read and corrected, if errors occur. It's usually better to delay the reply until it may be sent out expressing the ideas clearly, concisely and accurately.

In reporting telephone numbers and prefixes, scarcely anyone will fail to appreciate the need for extreme accuracy. The same also applies to the use of figures and dates.

There is a further point in which accuracy and completeness are especially helpful,—viz., that of street-corner addresses. Some of our cities have been planned so that certain hundreds designate corresponding cross streets. Where these conditions make it possible, it would seem of little additional trouble to use those numbers in such a way as to assist the public and the other employees in locating the addresses. For example, 401 Euclid Avenue is more definite than Fourth and Euclid Avenue. This does not, however, apply to the other end of the same block, inasmuch as 426 or 462 might signify the last building in it. There the compass designations should be used.

These are all minor points, but there are occasions when they become of major importance. Why not be on the safe side always, particularly as it requires so little extra effort?



Our President in Philadelphia

(Continued from page 1)

any other meeting in the society's history had been

beaten with nearly 200 to boot.

When the Secretary read the list of applicants, they were found to be as follows: 25 from Commercial, two from Engineering, one from Legal, 77 from Plant Philadelphia, 22 from Plant Eastern, 13 from Plant New Jersey, eight from Diamond State, four from Traffic, 27 from A. T. & T. Company, 31 from Western Union Telegraph Company, and 55 from Western Electric Company, totaling 265 applicants—another record for the society. One ballot was cast electing all to membership.

Mr. J. H. Hons, Division Auditor of Receipts,

who introduced our President, said:

"I have been asked to introduce the speaker this evening, but to my mind this is entirely unnecessary, for I am sure he is well known to us all. It was my good fortune to be associated with him when I entered the telephone business almost eighteen years ago. His rise from a position in the Accounting department to the presidency of our group of Companies should be an inspiration to everyone. I believe I voice the sentiments of each member of the society and of each employee in our group of Companies when I say we sincerely trust he will be spared to us for many years. The efforts of any body of men will prove of little avail without a strong leader. We are fortunate and we are honored to-night in having with us our leader—our President.'

Mr. Bethell spoke briefly and often extemporaneously. In part he said:

Mr. President and Gentlemen of Pennsylvania: I said to Mr. Sylvan, as we walked out of Broad Street Station to-night, that I felt somewhat appalled when I considered the responsibility that attaches to an undertaking such as mine to-night.

Here we are gathered together for the first time in this beautiful hall—I am told by Mr. Daly, over twelve hundred of us. We are gathered from several states. Some of you have traveled great distances to come here, and you are going to be glad you came, not because I am going to tell you anything that will be new to you especially, but because we always are glad when we get together on occasions of this kind; and we are not only glad because of that human sympathy that goes right through all of us, but we are glad because we are working together for a general purpose, and that is, to spread civilization through this Eastern group of Telephone Companies. Civilization goes with telephone service.

I may confess that I have had little opportunity since Mr. Daly invited me to come here to-night, to prepare what we have known in the past as a paper. I have made some notes, however, without any particular desire to attract attention to any particular part of the business. I am going to wander along as I see fit.

I am indebted to Mr. Hons for the very graceful and gracious manner in which he introduced me. It is a fact that Mr. Hons and I worked together in the good old days,—and we worked nights sometimes,—he on one side of the desk and I on the other, and Mr. J. S. Wiley in the front

room telling us when to go home.

You men of the Central Division (you know what I mean by the Central Division—that great big heart of the Eastern group of Companies, the Bell of Pennsylvania), the C. D. & P., the D. & A., the Diamond State and Womelsdorf and Rehrersburg Rural Tel. & Tel. Companies know me, if not as a telephone man, then as a telephone society man. I have met with this society before.

I have addressed the telephone society in Harrisburg, where upon one occasion the genial Mr. Eberts introduced me as the man who needed no introduction. In Pittsburgh once, after talking for an hour I was called down by the President of the society for smoking. You know they can't stand smoke in Pittsburgh.

I think, however, it was John Boeggeman's fault, for it was he who gave me the cigar, and the match with which to light it. The last time I was in Philadelphia I thought I detected a bit of sarcasm in some utterances of your Secretary. He referred to me as the man who when in the territory of the C. & P. sang "Dixie" or "Maryland, My Maryland" louder than anyone else. In New York, I am charged with leading all the world in singing "Give My Regards to Broadway" or "Put Me Off at Buffalo," and in Philadelphia I am said to sing in the most soothing tones "Rock-a-Bye Baby."

If memory serves me right, however, that good old song, "Hail, Hail, the Gang's all Here," is a Philadelphia masterpiece, and I, as one of the gang, can sing it to-night with much gusto.

In the evolution of things it is to be observed that our telephone societies have come to a marked change in character. In other days we listened to sermons from the General Officers, highly technical papers from the Engineers, or "Accounting Routines Made Simple" by the Auditors. Now we find everywhere talent of an unusual character which has heretofore availed us nothing.

Our Blue Bell orchestras, our glee clubs and our Committees on Refreshments are to provide in the future the major part of our entertainment. I heard a biologist some time ago say that the function always precedes the organ, as, said he, at the outset the jelly-fish simply wrapped itself around its food, in time, however, developing a stomach. That the function precedes the organ is a settled law, and therefore we should not be surprised that when the fact is developed that one function of a telephone society is to provide wholesome amusement for its members, its members themselves should discover the way to do it. I approve of the change, but it has come so suddenly that it might have found me, with a sermon all prepared, somewhat in the predicament of the colored woman down in Maryland whose husband died just after she had bought herself a new black dress. She pondered the matter for a while, finally concluding that if she wore that dress the folks would think she was in mourning for that "nigger" she traded it in for a pink one. And so if I had prepared a sermon I should have left it behind. I am glad that I am here, if for no other purpose than to enjoy with you the blessings that have come out of the new order of things.

In London, last summer, a niece of our Mr. Wilson, of Pittsburgh, whom I met there, told me of an experience she had had in a railway carriage. You know over there the railroad carriages are cut up into compartments and the traveler is often compelled to ride in a small compartment with strangers. It was Miss Wilson's luck to be shut up in one of these compartments for about six hours with a Frenchman who talked incessantly in very bad English. When he was reminded that it really wasn't necessary for him to provide entertainment, he said, Madam, what an opportunity is this for me to practice my English." Possibly some of us have felt that way about the telephone societies and have made you sit it through whether you listened or not. Sometimes, however, one hears at meetings of these societies things so precious that they will linger long in the memory.

It was my great pleasure a few nights ago in New York, at a meeting of the telephone society there, to hear from the lips of the first man to hear the human voice transmitted electrically over a wire a vivid and lucid description of the events attending the birth of the telephone. Dr. Bell, like Sherlock Holmes, had his Watson. It was Mr. Thomas A. Watson who, acting under Dr. Bell's instructions, made the first speaking telephone. It was Mr. Watson who worked continuously with Dr. Bell in making that telephone useful. It was Mr. Watson I heard a few nights ago in New York.

The telephone was born in a garret in Boston, and incidentally there came into existence in the same garret and at about the same time the sound-proof booth. Mr. Watson in his wonderful address in New York told of threatened difficulties with the landlady due to the tremendous shouting necessary at that time to get a message over the wires. To avoid being ejected from the premises as a disturber of the other boarders he removed from his bed a blanket which he rigged up in such a way about his instrument as to allay the racket, incidentally installing the first sound-proof booth.

The first telephone used by Dr. Bell in talking to Mr. Watson has been developed until its usefulness to mankind to-day cannot be measured by any known standards. Considered from the viewpoint of time saved, it has not only lengthened the life of every man who uses it, but it enables us to include into our lives many things that could never be included if we lived for a thousand years without it.

Forty years ago the telephone did not exist. To-day there are in the Eastern group of Bell Companies alone 1,760,000 telephones; there are 4,600,000 miles of wire; there are over 6,000.000 completed connections daily; there is invested in telephone property approximately \$230,000,000; and there are on the pay-rolls 42,000 people. An army of 42,000 people engaged in this territory in extending the blessings that followed so rapidly in the wake of the little telephone born less than forty years ago in a Boston garret. And we are only one brigade. In the United States there are 130,000, and in the world, I dare say, a quarter of a million, engaged in this commendable occupation

When we use the word "development" we understand one another to mean the development of the telephone service, which indeed has been startling in its rapidity. Development differs from growth in that growth is always involuntary. Topsy, you will remember, just grew, that was all. My boy and yours, or girl as it may be, are just growing, as bills for coats, shoes, etc., amply testify.

The ability to think straight, however, is developed. It approaches perfection only as effort is made to perfect it. Application fired by ambition makes us the masters of the rarest faculty known to man, the faculty to reason. That is development.

A safe and sound development of the mind is accomplished only by hard and conscientious application. Its full enjoyment is dependent on the normal development of other things, as, for instance, 1st, A Strong Body; 2nd, Imagination; 3rd, A Sense of Humor.

Routine thinking means getting into a rut, and we all know what that means. Imagination prevents routine thinking, and Imagination, when employed jointly with its twin-sister, a Sense of Humor, cannot lead us into doing erratic mental gymnastics.



Imagination in business is just as necessary as human energy itself. The telephone could not have been invented without it and the great telephone industry could not have been developed without it.

Every man I know in our business is in it for the sheer love of it, and though some rise higher in the ranks than others, we rise alike in the more essential things, the things that make for good citizenship, and in the end all are equally well off.

Now before I sit down I am going to draw a parallel as between our great business and the great game of football. Many people at football games enjoy the cheering and the noise more than they enjoy the game.

The players on the field, however, do not know and they do not care in what some particular spectator or group of spectators are interested. Their thoughts are concentrated on playing a

hard, straight, honest game—just where they must be concentrated if the game is to be won. Those of you who read newspapers know that the Interstate Commerce Commission is about to undertake an investigation of our business.

That investigation will go forward in an orderly way, but it is no part of that splendid game you are playing out there on the field, and you must not permit yourselves to become distracted or in any way disorganized about it. The game, after all, is to be won out there where you are and not in the rooms of any Commission. You play it as you have played it in the past, happy in the assurance that your game is straight and that because of that fact you will win and that justice will in the end give you the victory.

Mr. H. F. Thurber, Vice-President, when called upon, spoke of the origin of telephone societies and of their growth, including the change of subjects from purely technical ones to general as well. He outlined briefly how they had brought closer acquaintanceship.

Mr. Ford Huntington, Vice-President, in commenting expressed his pleasure at being at a meeting of The Philadelphia Telephone Society and mentioned his pride in belonging to such an organization of men as those in Bell telephone

Mr. M. H. Buehler, Second Vice-President and General Manager of The Chesapeake & Potomac Telephone Company, congratulated us on our society's enlarged quarters and membership. He spoke of the gain made by the societies in Balti-more and Washington and hoped for continued success here as well as there.

Mr. L. H. Kinnard, our Second Vice-President and General Manager, spoke very briefly of his own enthusiasm over such a splendid attendance and referred to the orchestra and chorus which were to entertain on an upper floor.

After a rising vote of thanks to the speakers and to the various committees, the meeting adjourned and the members and guests proceeded to the room on the fifth floor, where the orchestra of 30 men and the chorus of 24 men entertained.

The musical efforts of these two groups of workers in the telephone and associated businesses was most gratifying. There was a noticeable feeling of pride all over the crowded room. While the majority of members of the society were smoking, the orchestra and chorus did not display the least discomfort in playing and singing under these circumstances. The leaders, J. Frank

Shannon of the orchestra and George G. Young of the chorus, both showed results within about three weeks that would have done credit to professionals.

Their support was as follows:

ORCHESTRA.

First Violin.—C. Ebenbach, Gerge Hoffmann, James Reekie, F. D. Reynolds, S. H. Sauer and W. A. Scheible.

Second Violin-George B. Chase, H. A. Clarey, H. E. Garrison, J. A. Jervis, Thomas McNamara and George Miller, Jr.

Viola—A. M. Hersch

Bass Violin—W. L. Bicking.
Flute—C. C. Lee and J. R. Valliant.
Cornet—W. Achuff, J. N. Ellis, A. B. Scheffey and W. Showalter.

Trombone-F. G. Brewster, J. L. Greene and J. A. Joyner.

French Horn-Thomas G. Rowand and H. L. White.

Drum—T. H. Peoples and William Thomas. Bass Drum—G. Bolton.

Piano-W. Leirer.

CHORUS.

First Tenor—J. H. Abdill, J. Milton Connell, John A. Finnie, Herbert W. Hill and H. Miller. Second Tenor—J. R. Bonachea, W. Cunningham, L. Hull, O. W. Turnbull and C. M. Wiest.

Barytone-B. Gause, Carl Huch, A. W. Lincoln, Joseph Nugent, H. P. Patchett and P. C. Ragotzky.

Second Bass—J. C. Alexander, C. Brown, T. H. Griest, F. C. Koelle, P. J. McCaffrey, David Pierson and W. J. Stewart.

The selections were these:

The selections were tnese:

"Vallonia" ... Orchestra.

"Jolly Blacksmith" ... Chorus.

"Blaze Away" ... Orchestra.

"Kentucky Babe" ... Chorus.

"Minstrel King" ... Orchestra.

"Rosary" ... Chorus.

"Oh You Little Bear" ... Orchestra.

"Greetings to Spring" (Blue Danube Waltzes) ... Chorus. ube Waltzes)......Chorus.

For encores, parts of the selections were repeated.

When the society members surged down the stairs there were comments everywhere that The Philadelphia Telephone Society, with the aid of its officers, committees, orchestra and chorus, had outdone itself to a degree that would be hard to

Baseball "Scouting" by Telephone By C. W. Wendell, A. T. & T. Company Philadelphia

"Jim" Thorpe, the famous Olympic champion, is now signed to play professional baseball next season with the New York Giants.

As soon as he announced that he intended to go into the professional department of sport by way of the "Big League," the manager of every major league baseball team in the United States was anxious to "sign" him with his own particular Baseball scouts descended on Carlisle, where Thorpe was still a student, but he, realizing that his fame as an athlete made it possible for him to pick his team, practically dictated on what terms he would play.

"Johnnie" McGraw, Manager of the Giants, called the Napoleon of baseball on account of his astute and resourceful methods, was as anxious to secure Thorpe as any of the other managers, but he pursued different methods. Sitting in his office in Broadway, New York, he got Thorpe on the long-distance wire. A few minutes' businesslike talk and Thorpe was one of the Giants.

McGraw had realized that quick action was

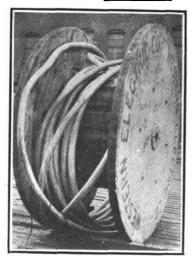
necessary and appreciated the value of "the personal touch." He had reasoned that he personally could accomplish more than some other manager. scout, and that the telephone would project his personality to Carlisle much quicker than any train. He planned wisely and he did all he planned. He got what he went after and-dare we even whisper it?—much more cheaply than he could have gotten it by any other means.

The Spring Issue of the Phila. delphia Directory

The distribution of the spring issue of the Philadelphia and Vicinity was started on February 6. This issue contains 15,969 more listings than the winter book, of which 11,194 are in the "City of Philadelphia" section and 4775 in the "Outside of Philadelphia" section.

The Classified Directory, printed on yellow paper, consists of 224 pages, an increase of 12. It contains over 58,000 listings, of which 4400 are bold type as against 3450 in the winter issue. There is an increase of 83 inches in the display

advertising, bringing the total up to 900 inches.
A total of 242,000 directories have been printed. These are being distributed by The Howe Addressing Company at the rate of 20,000 books a day in the business section of Philadelphia and at a correspondingly decreased rate in the less congested districts. The completed proofs for this directory went to the Jersey City Printing Company on January 21, allowing exactly 12 working days to set up, print, bind and deliver nearly 250,000 directories.



Reel of Surplus Cable Returned to the Western Electric Company

A Word to the Wise

The accompanying illustration is a photograph of a reel of cable received by the Western Electric Company from one of our warerooms.

To prevent cable from working loose on a reel it is the general practice to tie the outside end of the cable with marline or wire to a staple on the reel. In this instance the tie was improperly made, permitting the end of the cable to work loose. The improper tie was the first and most important cause of the condition shown in the illustration.

There is a right and a wrong way of rolling a reel of cable. The right way is to roll the reel in a direction opposite to that in which the cable is wound on the reel. This method has a tendency to keep the cable from working loose. The second cause of the condition of the cable on the reel was the rolling of the reel in the wrong direc-

If the reel had been rolled in the proper way. while the cable would have undoubtedly been loosened, the result would not have been so seri-





Curves of Scranton's Entire Local Traffic on Two Typical Winter Days

Scranton, Pa.

(Continued from page 1)

the elevation is about 750 feet above sea level. It increases from 750 feet to 1800 feet in the near-by Pocono Mountains, whose rugged grandeur rivals that of any mountain in the world. Within a few miles of Scranton there are twenty lakes, and in Wayne County, adjacent to Lackawanna, there are seventy-eight of the most beautiful and picturesque bodies of fresh water that can be found anywhere in the United States.

Splendid roads lead out of the city to the east, west, north and south, and within a short time two magnificent highways will run the length of the valley, one on either side of the river.

In educational and civic development Scranton has kept pace with the largest cities of the world. Few cities of its size expend greater sums than Scranton does for educational purposes.

The religious standard of the city is high, and the architectural beauty of its churches compares favorably with that of other cities.

Scranton can boast of having one of the finest fire departments in existence, its reputation being widely known. This department has nearly 125 paid men, with an additional list of forty call men who are always ready for duty. It can also be said with all sincerity that the Scranton police department is efficient and honest. The police roll includes 125 men, with an adequate and ample detective force, so that all in all the safeguards to life and property furnished by the city excel the average of those of other cities in the United States.

Scranton has one of the finest public libraries in the United States. It can boast of its association homes, its clubs, its hospitals and charitable institutions. Both the Young Men's Christian Association and Young Women's Christian Association are housed in structures that are models for their purposes.

The amusements of the city are worthy of comment. The theaters are excellent and include one of the most beautiful vaudeville houses in this country. Nay Aug Park, with its acres of wild mountain land, its beautiful waterfall and its broad expanses of lawns and horticultural

gardens, is unsurpassed by any natural park. In every section of the city there are breathing spots and public playgrounds for the children.

Half a million people live within a ten-mile radius of Scranton. The city is surrounded by a wide diversity of industries which turn out seventy-two distinct products. Among the many manufactures, there are brass goods, aluminum, locomotives, railroad cars, stoves, bolts, nuts, mining machinery, etc. One-third of the raw silk imported into the United States is consumed by the mills of Scranton. It also has the largest button factory and lace curtain factory in the United States, and ships its products to all parts of the world.

On account of the enormous amount of coal in this region the city has unusually cheap power. Electric light, gas and water rates are much lower than in most other cities.

There are five steam railway and two inter-

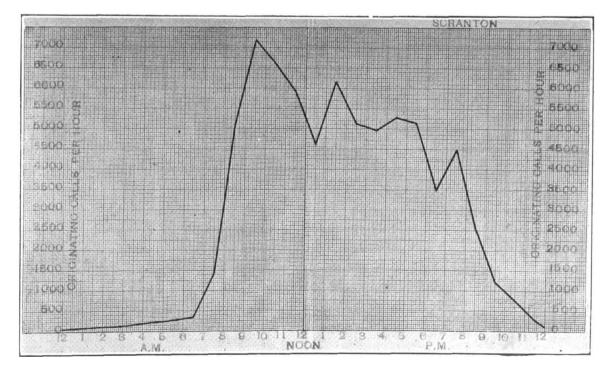
urban systems running into the city, placing a score of outlying towns within a few minutes of Scranton.

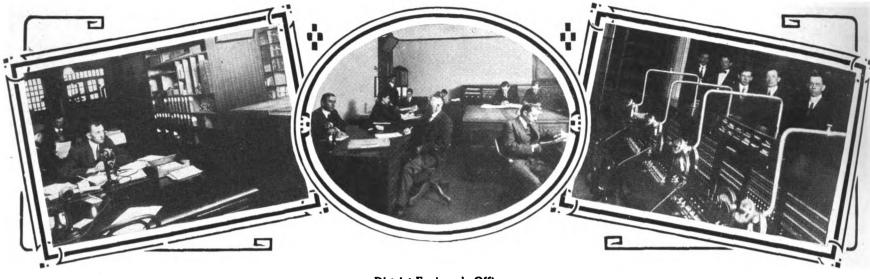
So, it may be said that Scranton is not only a pleasant town to live in, but a healthful and profitable one as well. Its healthful climate, abundance of pure water, beautiful surrounding country, good school systems, adequate churches and efficient and economical administration of municipal government make it unusually attractive. There is, too, no lack of employment, and, indeed, every advantage that is to be found in an aggressive and fast-growing city.

From a telephone standpoint it is interesting to "Watch Scranton Grow." In the year of 1902 there were 2663 Bell telephones in the entire Scranton District, including Carbondale, Honesdale and Scranton. In 1906 there were 4736 telephones in service in this same district, and in 1911 there were 12,951 stations. To-day the Scranton exchange alone serves 10,324 subscribers.

The Lackawanna & Wyoming Valley Railroad Company, which is well equipped along its entire system with Bell telephone service, has one of its most beautiful passenger stations at Scranton. It ranks high in investment and beauty among the passenger stations of the United States. Being about 140 miles from New York and 266 miles from Buffalo, Scranton is nearly midway on the main line of this railroad. The Lackawanna shops, recently constructed, employ almost 2000 men who make Scranton their home. This company also operates a number of mines in different parts of the city, all of which are equipped with Bell telephone service. Most of the trainmen and railroad men residing in Scranton have Bell telephones in their homes, inasmuch as they are called directly from the dispatcher's office, which is also adequately served by private branch exchange service. This system does away with the callboy who was formerly used in summoning railroad men to their duties.

Several of the large coal companies, including the Pennsylvania Coal Company, are users of Bell telephone service, having telephones in each





Part of Storeroom

D. M. David and J. E. Rich.

District Engineer's Office

J. J. Boyle, W. M. Woomer, A. Tobey, C. H. Linde, A. E. Beck, R. Svessenguth, J. Renschler, H. E. Doster, R. Phillips.

Views of Scranton, Pa., Offices

Test Table and Wire Chief's Office

W. R. Barrett, L. Gerrity, W. Conlon, B. J. Riedmiller, J. F. Shaub.

of the collieries "up and down" the Lackawanna and Wyoming Valleys. Scranton also has a large number of manufacturing plants which are heavy users of our service.

Scranton has seventy-five private branch exchanges connecting approximately 1500 stations.

The connecting link between Scranton and Wilkes-Barre, eighteen miles away, is the Lackawanna & Wyoming Valley Electric Railway system. This is known as the Laurel Line, and is of the third rail type, running trains every twenty minutes. This electric railway system is also controlled by Bell telephone from the private branch exchange in the dispatcher's office in Scranton.

The Hotels Casey and Jermyn are model hostelries and a credit to Scranton. They have between 200 and 300 rooms each, all of which are equipped with Bell telephones for the convenience of the guests.

An institution which Scranton is proud of having within its gates is the International Textbook Company, better known as the International Correspondence School. This school is known throughout the world and sends out lessons in every language. It employs from 1500 to 2000 people. It is equipped with private branch exchange service using 22 stations.

Scranton's department stores, most of which are equipped with branch exchange service, do a large amount of business by telephone. A majority of the twenty-one banks and trust companies of Scranton are served by private branch exchanges.



Allentown District

A telephone window display in the large double window of the Bush & Bull Co. department store, Bethlehem, Pa., attracted a great deal of attention. The window was well lighted each night until midnight. Mr. Bush, a member of the firm, told Local Manager Howard that this display

attracted more attention than any window decoration which that store had used for several years. The window display is reproduced on this page.

A member of a firm in this district has evidently been much impressed with the A. T. & T. Company advertising, for he wrote twice to that Company during January asking for rates and particulars, one letter to cover farm service and one for service in the near-by town. He states: "Three telephone systems in this town and locality make it very inconvenient. Large offices, to be in touch with all who use a telephone, are compelled to install three telephones. But there are very few who install three; most places have one or two telephones; all would be benefited by having only one company here, and that the Bell System. We need "One Policy, One System, Universal Service." WOLF.

Harrisburg District

The telephone and the parcel post brought bread to a Mercersburg rural subscriber in time for the noon meal the other day. Surely, modern conveniences make life worth living for rural as well as for city inhabitants!

The map showing our rural development near Waynesboro and surrounding towns, which occu-

pied a page in our January 1 issue, was reproduced full size in the Waynesboro Record and Herald and in the Mercersburg Journal. It is probable that several additional stations will be one result of this publicity. When we printed the map, it showed dots representing 810 rural stations in that district. The map has become a fixture in District Manager Jacobs' office.

Reading District

A trouble slip was recently received at the Mount Carmel office which read, "96-Y can 'get' the central office and hear the operator, but the operator cannot hear the subscriber."

On making investigation the Inspector found a rather peculiar cause for the trouble at the subscriber's station. The dry batteries were located in a wooden case, and a large rat had gnawed a hole in the case, entered the box, built a nest and settled down to the duties of keeping house. She had a family of six. They, lacking more desirable food, had eaten the insulation from the wires connecting the batteries, thus causing the trouble which had been reported.

The rats were promptly evicted for "non-payment," the batteries were placed in a metal case, and everything was then reported O.K.



Aerial Cable Display in Bush & Bull's Department Store, Bethlehem, Pa.



P. S. Harkins, District Engineer, Scranton

Receiving a signal at 2.30 A.M. from a station located in a large store at Shamokin, Pa., the night operator plugged in and heard a most unusual noise and commotion.

Realizing that there was something radically wrong, she called the police station. An officer was promptly sent out, and upon investigation found a Maltese cat gloating over the dead bodies of three large rats. During the battle with the rats, the cat had overturned the desk set and signaled the central office, thus using the Bell telephone to guard her home by night as well as by day.

A man on Perkiomen Avenue, Reading, signed an application for service at 5.45 P.M., January 17. Owing to a death in the family he requested prompt installation. Assignment was secured from the Wire Chief by telephone at his residence at 7 o'clock the same evening. The station was connected and reported O. K. at 8.30 A.M. the following morning.

Scranton District

The organization of the Progressive Telephone Company of Northern Wayne County has been accomplished at Lake Coma, Pa., through the persistent efforts of Rural Salesman F. W. Stahlheber of the Scranton District office.

The territory of this company lies in a rich farming district well supplied with lakes, there

being twenty-four very fine lakes within a radius of forty square miles of Lake Como, Pa. The immense water acreage of these twenty-four lakes is often the "salvation" of the ice business of the state. The purest and largest quantity of ice is cut from Bone or Summit Lake, 2000 feet above tidewater. This lake is very shallow and has a white, sandy bottom.

Good boating and the finest fishing are to be enjoyed on these lakes, and this territory has great possibilities as a summer resort.

While installing a telephone display in the show window of Baumeister's pharmacy at Scranton, Pa., one of the salesmen stepped out on the sidewalk before the display was completed to criticise it, and as he was about to re-enter the store a man stepped out from the crowd that had gath-



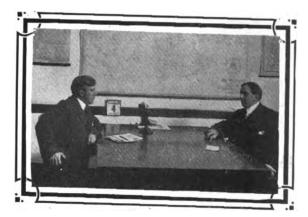
Plant Employees at Scranton Miss Anna Phillips, A. G. Northacker, W. M. Most

ered in front of the window and asked the rates for residence service. He then gave his name and address and said he would be ready for service April 1.

SMITHING.

Wilkes-Barre District

A Wilkes-Barre physician, who lives in a large apartment house, had an amusing experience with a neighbor living across the hall. It seems this neighbor's child was taken suddenly ill and



E. G. Simons,
District Manager, Scranton

H. E. Ward, Local Manager

wanted a physician at once. Not having a telephone, he rushed across the hall and used the doctor's telephone to call another physician, and when he was through talking the doctor said, "Why wouldn't I do? Whereupon the neighbor stammered and stuttered and finally said, "I never thought of it till this minute." Immediately after this time the other physician had arrived.

A rural line subscriber near Bloomsburg, who never does anything by halves, had occasion the other day to bring his telephone to Bloomsburg for repairs. To make sure that the line would be in good working condition while his telephone was disconnected, he twisted the ends of the inside wiring together and, on arriving at the central office, reported what he had done. The result to the remaining subscribers on his line can be imagined.

Combination man Hope Penman, of Danville, and Lineman Elmer Cain, of Bloomsburg, did a record job recently, when with one helper they set seventeen poles in half a day to complete a hurry-up installation job for the Danville Poor Board. A pleasant incident in connection with the job was that the Superintendent of the Poor Board, to show his appreciation, invited them to partake of the annual dinner given by the trustees. Needless to say the dinner was heartily enjoyed after their strenuous work.

SHAFER.



Operators' Rest Room

Mary Lees, Anna Monahan, May Flynn, Lyda Crossin, May Lafferty, Kathryn McManamon, Cecelia Haggerty, Anna Casey.

· Commercial Office

Marion Haggerty, Dorothy Kellam, B. Fitzsimmons, Harriet Baldwin, Helen Igoe, Harriet Silverman, Genevieve McLane, Anna Collins.

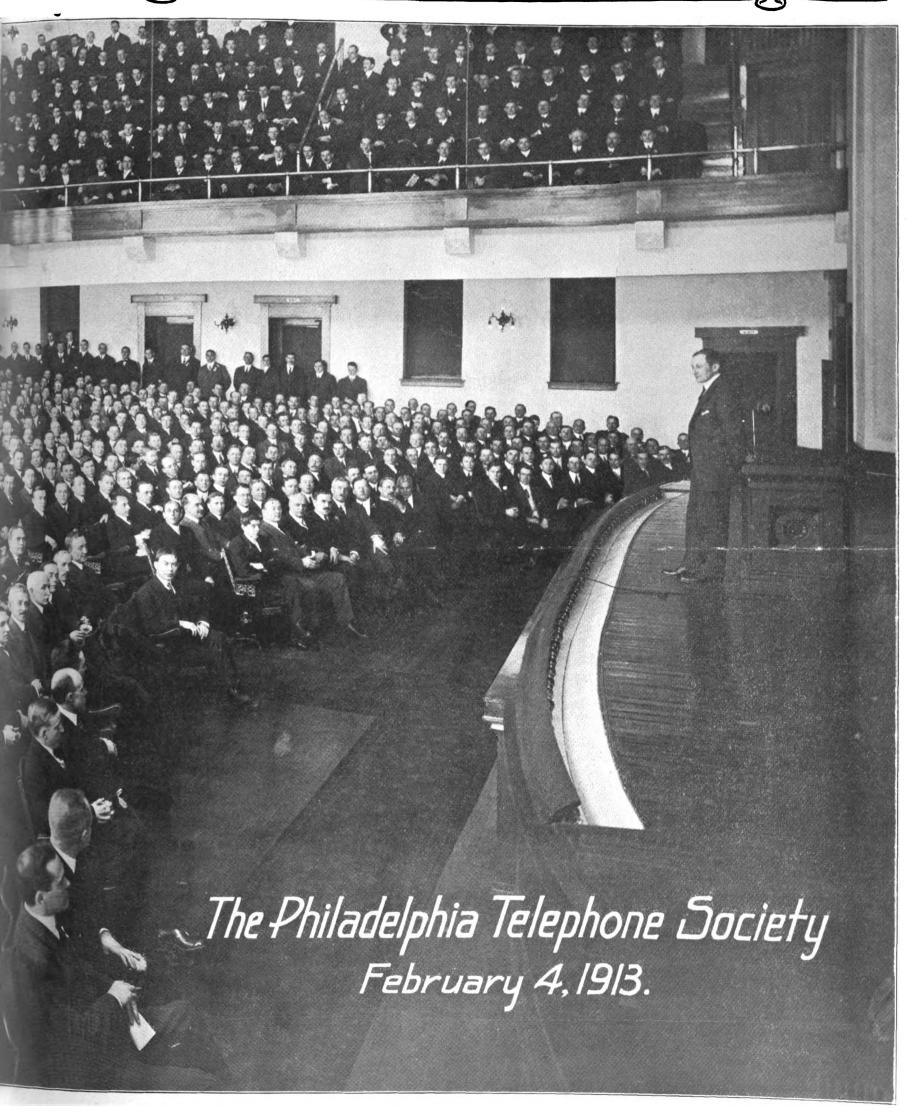
Some Scranton, Pa., Women Employees

Lunch Room

Helen Luby, Romayn Lynch, Agnes Mackey, Ruth Peters, Anna Monahan, Gertrude Lynch, Kathryn McManamon, Gertrude Fox, Florence Fagan, Mary Bushnell, Matron.

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Farewell Dinner to S. P. Grace

On the occasion of the transfer of Sergius P. Grace from Plant Superintendent, Pittsburgh Division, to Engineer of Outside Plant, Philadelphia, his associates in the Pittsburgh Division gave a dinner in his honor.

For this purpose one hundred and twenty-five

Telegrams Telephoned-Call Designations

Effective February 1, 1913, the use of the term "Telegram" as a call designation by patrons desiring to be connected with the Western Union Telegraph Company for the purpose of transmitting a telegraph message was discontinued, and the following call designations adopted for use where a telegram or cablegram is desired to be sent by telephone for transmission over telegraph companies' lines:

(a) The term "Western Union" as a designation exclusively for the Western Union Telegraph Company, or for its connecting telegraph companies operating in localities where the Western Union Company itself does not operate;

(b) The term "Postal" as a designation exclusively for the Postal Telegraph and Cable Company, or for its connecting telegraph companies operating in localities where the Postal Company itself does not operate.

Calls in connection with the general business of either the Western Union or Postal Company will be handled by number in the same manner as calls for other subscribers are handled

calls for other subscribers are handled.

The call designations "Western Union" and "Postal" will be printed in the subscribers' telephone directories issued on and after February 1st, in such manner and with such explanation as to show clearly that a person desiring to send a telegram over the lines of either Com-

persons assembled in the Fort Pitt Hotel, Thursday evening, January 30. After a delightful dinner, Mr. J. H. Boeggeman as toastmaster took charge. Toasts were given by Messrs. Clarkson, Ewing, Ridge, Snyder, J. K. Martin, Gordon and Bishop.

Mr. F. A. Stevenson, General Superintendent of Plant for the A. T. & T. Company, was pres-

ent and responded to Toastmaster Boeggeman's call.

After Mr. Grace's response, the time was thrown open to anyone who wished to "speak from his heart," as Mr. Boeggeman termed it, and a number of those present volunteered.

Music during the evening was furnished by an orchestra composed of Pittsburgh employees and in charge of W. H. Hay, who led several songs.

pany may do so by the use of the respective call designations named above. In no case will the word "Telegram" be recognized as a call designation, and if such word is used, the proper employee of the Traffic department will inform the person calling that it is not recognized as a call designation, and will request the person calling to use the proper term.

Patrons desiring to be connected with a telegraph company that is not a subscriber to the local exchange service will be informed of the conditions by the Traffic employee. The Traffic employee will also inform the patron of the telegraph company or companies that are subscribers, naming them in the alphabetical order in which they are listed in the directory.

When a request is made for telephonic connection with a designated telegraph company, and the connection cannot be established at once, the patron will be advised that there will be a delay in connection. If the patron request it, the Traffic employee will designate the other telegraph company or companies that can be reached through the exchange, naming the companies in the alphabetical order in which they are listed in the directory.

If a patron indicates his desire to transmit a telegram but fails to indicate the telegraph company desired, or expresses indifference thereto, the Traffic employee will request the patron to designate the telegraph company with which he desires connection, and will not assist the patron in any way by directing or advising, or by designate the telegraph company with which he desires connection, and will not assist the patron in any way by directing or advising, or by designate the telegraph company with which he desires connection, and will not assist the patron in any way by directing or advising, or by designate the telegraph company with which he desires connection, and will not assist the patron in any way by directing or advising, or by designate the telegraph company with which he desires connection, and will not assist the patron in any way by directing or advising, or by designate the telegraph company with which he desires connection, and will not assist the patron in any way by directing or advising, or by designate the telegraph company with which he desires connection, and will not assist the patron in any way by directing or advising, or by designate the telegraph company with which he desires connection, and will not assist the patron in any way by directing or advising.

nating a particular telegraph company. The operator will name the telegraph companies connected with the exchange in the alphabetical order in which they are listed in the directory.

Traffic Credit

From Noble, Ogontz (Pa.) Traffic District, the wife of a subscriber wrote to the "Manager" and referred to the operators as "so pleasant and accommodating." She characterized the information clerks by similar terms and ended her letter:

"I want to wish them all a very happy New Year, and to hope that we shall get along as nicely in 1913 as we did in 1912."

Additions to the Telephone Equipment of the City of Philadelphia

Extensive additional equipment consisting of twenty extra exchange trunks to Poplar central office, ten to Kensington central office, and ten to Preston central office, together with fourteen additional cord circuits—two for each position—has been installed for the Electrical Bureau of the City of Philadelphia. This is to augment its branch exchange which is located in the Filbert central office exchange area. These additions are made necessary by the constantly increasing traffic of the Bureau and they are expected to facilitate greatly both incoming and outgoing service.

Health Protection and Preservaion for Telegraph and Telephone Employees

Dr. Alvah H. Doty, formerly health officer of the port of New York, has been appointed medical director of the Employees' Benefit Fund Committee of the American Telephone and Telegraph Company, the Western Union Telegraph Company and the Western Electric Company in connection with the administration of the new pension and sick benefit plan for employees of these allied corporations. There will be established gradually by these Companies a system of medical supervision and preventive sanitation designed to preserve the health of the telephone and telegraph army.

Mr. Theo. N. Vail, President of the American Telephone and Telegraph and Western Union Companies, in announcing Dr. Doty's appoint-

ment said:

"It is intended that the medical department shall have wide range in its activities. In addition to the usual functions of such a department it will devise and carry out various methods of health protection known as 'preventive measures.'

"So far as practicable we shall seek the early detection of diseases, particularly those that are communicable, notably tuberculosis, and arrange for their prompt removal, care and treatment. This not only offers a far better chance for the patient's recovery, but also protects other employees.

"Preventive measures also will include sanitary conditions in offices and workshops, such as proper lighting, good air, pure water, safe plumbing, and the discontinuance of articles in general use which are believed to be agents of infection.

"By various plain and practical methods employees will be instructed in hygiene and sanitation, and we hope that the information thus gained will extend to the home and to the public generally.

"Modern sanitarians know that the public health is best maintained by prevention rather than by treatment of disease after it develops. The measures we plan are of inestimable value, not merely in the interest of our Companies, but also in public education on sanitation subjects, for our employees are everywhere in the United States, even in smallest towns.

"Supervision by the medical department over sick and injured does not necessarily mean that the Companies are to furnish medical attendance for those who are disabled, but so far as possible they will aid in securing prompt and skillful treatment for employees. Arrangements will be made with hospitals throughout the country for prompt reception of those who may decide upon this form of treatment. Medical representatives will be selected to deal with the various conditions and emergencies that may arise in connection with this branch of the service.

"The various measures outlined will be carried out in a reasonable way and without undue haste, for haste often involves unnecessary expense, and with but little benefit to employees.

"This undertaking in accord with modern sanitation will also benefit the Companies, as it is intended to do. It provides mutual protection and coöperation between employee and employer. It insures far better and less interrupted service, and constitutes an economical factor in the interest of both parties."

Dr. Doty's office will be in the Western Union Building, 195 Broadway, New York.



Western Union Messengers

Years ago the average age of Western Union messengers was somewhat above that of the present day. Their duties were, if anything, perhaps more important than now in that fewer messages were sent. Such messages were, therefore, nearly all of the greatest importance. Many messages now sent by telegraph were then transmitted by postal service.

This photograph, taken in Pittsburgh in September, 1877, shows messengers some of whom are still in business. It also shows the *first* and third employees of The Central District and Printing Telegraph Company. These young men were all Western Union messengers from 1871 to 1874.

From left to right they are: Standing—Messrs. Henry C. Singer (afterward in insurance business; died October, 1880); James Kneeland (paper box business, Pittsburgh); John C. Connor (first employee, The C. D. & P. Telegraph Co., Pittsburgh, May 1, 1874—now with the Western Union Telegraph Co.); Thomas J. Donahue (railroad business, Pittsburgh). Seated—Col. W. C. Connelly, Jr. (District Manager, Associated Press, Pittsburgh; died November, 1912); William H. Smith (former Manager, Gold and Stock Telegraph Company—now stock broker, Pittsburgh); Albion F. Allen (hotel business, New York City); Henry B. Foster (third employee, The C. D. & P. Telegraph Co., November, 1874—now with the American Sheet & Tin Plate Co., Monessen, Pa.); Benjamin A. Jope (Assistant to City Assessor, Pittsburgh).

[We obtained the old-time photograph from Mr. Foster, who still retains a lively interest in telephone and telegraph matters.]

Safety Hints

A crew of linemen were engaged in removing "dead" wires. Under instruction of the foreman, each pole was supported with pikes when linemen were working on it. Toward the end of the day, the foreman's duties called him elsewhere and the linemen went ahead. One of the men climbed the last pole to remove the wires without first placing the supporting pikes. It was getting late and the men were anxious to complete the job. The pole broke off at the ground line and fell; the lineman jumped clear and escaped with slight iniuries. Had they used the same precaution with this pole as they did with the others, the accident would not have occurred. This is a case of accident resulting from taking chances in the absence of the foreman.

Charles Bourseul

Recently the names of men who were connected with the early history of the telephone have been before the public a great deal. Freshest in our mind is the notice of the death of Francis Blake, inventor of the solid-back transmitter, whose work was referred to in our last issue. The French press has lately recorded the death of Charles Bourseul, who wrote in L'Illustration, a Paris weekly, as early as 1854:

"Sounds are formed by vibrations and brought to the ear by these same vibrations, reproduced in intermediate media. But the intensity of these vibrations diminishes rapidly with the distance; so that there are limits, even with speaking tubes or trumpets, that may not be exceeded. Suppose that we speak near a plate so flexible that it preserves all the vibrations of the voice, and that this plate successively makes and breaks communication with a battery. At a distance, have another plate which will execute the same vibrations at the same time.

"I have begun experiments; they are quite delicate and require time and patience; but the approximations already obtained give very favorable results."

Bourseul was at this time employed in the telegraph office of the Bourse. It seems probable that his experiments were not approved by his superiors and that he obediently abandoned them.

Jesse C. M. Brown

Jesse C. M. Brown, for nine years switchboard inspector in the Filbert and Walnut (Philadelphia) central offices, died suddenly Wednesday, January 29, at Cooper Hospital, Camden, N. J.

Mr. Brown entered the telephone service in 1900 as a night switchboard man in our Kensington (Philadelphia) central office. In 1902 he went to Los Angeles, Cal., for his health and for two years was employed by the Sunset Telephone Company there. In 1904 he returned East, and from then until his death was switchboard man in the Filbert and Walnut central offices.

Mr. Brown lived in Westville, N. J. (Camden District). At the rear of his house is a small stream known as "Timber Creek," navigated by motorboats. Both he and his neighbor were working in the neighbor's boat, Tuesday evening, January 28. It was hauled out and jacked up on trestles to permit easy access for repairing and painting. Mr. Brown came out of the boat, said that he was not feeling well and would postpone further work and go home. A short stepladder led to a small platform or dock, and below that there was a further drop of perhaps three feet to the ground. His companion heard groans and came out of the boat to discover the cause. Mr. Brown had evidently slipped and fallen to the ground, striking his head either on the boat or platform. An automobile was pressed into service and he was hurried to Cooper Hospital, about six miles distant. An operation was performed at once, but Mr. Brown died of fractured skull early the following morning. The funeral was held Saturday following and the pallbearers were his associates in the telephone business.

Mr. Brown was quiet and modest and a thoroughly good worker. He was very popular among his telephone associates as well as at his home town. The Telephone News extends the sympathy of all to Mr. Brown's wife and three children.



Bridgeton Sub-District

The following clipping, taken from the Pitman (N. J.) Review, refers to one of our Plan "A" Rural Telephone Companies:

The semi-annual meeting of the Bunker Hill Rural Telephone Company was held last week at the home of Mr. Charles H. Bozarth, at Chapel Heights, east of Pitman. A very prosperous year was reported and the members expressed themselves as well pleased with the splendid service rendered by The Bell Telephone Company. Eight new subscribers were secured, making a total of eighteen in this progressive company.

"This company will at once build an extension of its line from Chapel Heights to Cross Keys, and run two additional wires from Chapel Heights to the Stone Road, where the line connects with the Pitman exchange of the great Bell Telephone system.

"We congratulate our enterprising neighbors to the east of us on the successful outcome of their undertaking of only a few months.'

We have secured a Plan "A" rural agreement including twelve subscribers, called the "New Italy Telephone Company," to be connected to the Vineland exchange.

We have also obtained an application for one additional circuit and eight new stations for the "Bunker Hill Rural Telephone Company," connected to the Pitman exchange.

The rural telephone was used effectively as a fire alarm near Cohansey one day recently. Children playing in the big barn on Wallace Halter's farm discovered a fire among the litter of the cow stable, said to have been caused by one of the animals tramping on a match which a farm hand had carelessly dropped. The rest of the family was all away, with the exception of two of Halter's small daughters. While one of the girls hurriedly unfastened all of the horses and led them safely out of the burning building, her sister ran to the farmhouse and summoned neighbors over the telephone. Help arrived in time to save the barn, and now the Halter family has only kind things to say about party-line circuits and people who are said to have an ear to the telephone almost continuously to keep from missing any of the community gossip.

LORE.

Camden District

The Almonesson & Good Intent Rural Company has divided up their subscribers and organized a new company. All the subscribers on these lines are prosperous farmers, who keep in touch with the market by use of their telephones.

A subscriber recently called the Business Office and requested her telephone disconnected. Upon being asked to give her name, telephone number, etc., she replied that she was too sick to talk and hung up.

Foreman Gilbert was called from his suppertable recently and requested to get his team and gang together in order to make an emergency installation in a quarantined residence. The loop was run, the pair picked with aid of lanterns and the instrument O.K.ed, all in less than an hour from the time he was called. A letter was received from the subscriber a few days later expressing his appreciation for the prompt work.

WRIGGINS.

Dover Sub-District

The sheriffs of two counties were called out to capture the most daring thief that has operated in Sussex County, when a negro loaded a brokendown automobile on a flat car at Harrington with Philadelphia as its destination. The automobile belonged to one of our subscribers at Rehoboth Beach. When one of his friends at Harrington telephoned that the car was being loaded, he got busy with the wires and two sheriffs immediately started for Harrington. The negro escaped and the automobile was taken off the flat car and received by the subscriber the next day.

The subscriber purchased the car in Philadelphia and started "down the State" with it. At Chester it broke down and he was compelled to hire a chauffeur, finally securing a negro whose



Morris H. Fisher Trenton District Driver of 11/2 Ton Truck

This Shows New Type of Uniform Now Used by Our Chauffeurs

name is not known to him. The negro brought the car as far as Harrington, where it again broke down and the subscriber took a train home, leaving the negro in charge of the car to take it down to Rehoboth Beach the following day. Early the next morning the negro had billed the car to Philadelphia, loaded it on a flat car and took the first train north himself. People at the garage who saw him loading the car supposed the subscriber had instructed him to send it back for repairs when some curious ones finally telephoned to Rehoboth Beach, where they were surprised to find that the owner was expecting the man down with the car. The negro has not been seen since.

Doylestown Sub-District

Two new Plan "A" rural companies have recently been organized to connect with our Doylestown exchange, both serving communities which formerly had no Bell service. They will be known as the Castle Valley and Ferry Road Rural Telephone Companies, serving six and eight subscribers respectively.

HENNESSY.

Norristown District

Bound hand and foot, gagged, and then placed upon a bed made from his overcoat and unfinished American flags, L. W. Famous, night watchman at the Dettra flag factory at Oaks, near Pottstown, watched three yeggmen blow open the safe in the private office and get eight dollars in cash. Valuable papers were said to have been overlooked by the robbers, who fled when the telephone bell rang.

Famous was held up about 9.30 P.M. by the men, who were armed. One man tied his hands behind his back, while a second tied his feet. The explosion, which wrecked the safe, could be heard for several squares. Alarmed by the noise, Mrs. Charles Bower, who lives near by, called the watchman by telephone. The bell rang while the men were taking the money and they hurried away. Receiving no answer, Mrs. Bower summoned help and broke into the building. Famous was freed and told how he had been held up. That telephone service was worth a great deal to the subscriber.

Trenton District

Three miles of loaded underground and aerial cable are being placed through Trenton to replace the present aerial plant.

West Chester District

Two new lines are under construction to the Downingtown (Pa.) central office—one of eight subscribers, taking four miles of circuit, and the other of six subscribers, taking one and one half miles of pole line.

Also a line is being built to the Guthriesville (Pa.) central office with seven subscribers, taking three miles of circuit.

In collecting from a sidewalk public telephone box at Church and Main Streets, Parkesburg, Pa., our collector found a letter in the box, someone having mistaken it for a letter-box. The letter was immediately dropped in the nearest mail-box.

A subscriber at Honey Brook, Pa., whose house is in a location until recently not served by our Coatesville central office on account of excessive construction cost, sent in a letter recently enclosing a check for \$36 as an advance payment on his account. He said in his letter that he had been anxious to get telephone service for several years, and now that he had it, he was going to make sure of keeping it for a year or two at GREEN FIELD.

Wilmington District

A private inspection of the new Hotel Du Pont was held on the day before its opening to the public. City officials and members of the Legislature were invited. The manager of the hotel, Mr. Tait, was so well pleased with the maner in which the installation of the private branch exchange was made that he invited Mr. E. S. Ryan, foreman in charge. Needless to say Mr. Ryan accepted.

On January 21, after midnight, an officer of the regular army at Fort Du Font discovered a fire in his residence. Fortunately the telephone was located on the second floor, since the flames made escape by the stairway impossible. By telephoning to the guard house and giving instructions to bring a ladder the family was rescued.

Material and poles are being delivered in connection with an estimate covering the rebuilding of the No. 35 toll line between Wilmington and Newark, the No. 39 toll line between Newark and Hockessin, the No. 38 line between Hockessin and Wilmington, and the No. 33 line between Wilmington and Fairville.

The Western Electric Company has started work on the installation of 1300 additional answering jacks and multiple and nine additional positions in the Wilmington switchboard.



Organization Changes

The Bell Telephone Company of Pennsylvania

Watkins Benerman, Clerk to Classified Directory Manager, Philadelphia, Pa.

C. P. Galleher, Assistant to Traffic Engineer, C. D. & P. T. Co. to Philadelphia.

F. H. Blythe, Salesman to Local Manager, Clearfield, Pa.

R. H. Laros, Central Office Man to Salesman,

Easton, Pa.

Stanley L. Wilkinson, Clerk to Salesman, Commercial Department, Philadelphia Division, to Wilkes-Barre District.

Mark Fullom, Groundman to Climber, Erie

District. J. K. Stanton, Groundman to Clerk, Erie Dis-

trict. Geo. M. Thompson, Equipment Chief Clerk to Line Order Clerk, Plant Department, Philadelphia Division, to Commercial Department.

F. T. Wesley, Groundman to Climber, Altoona District.

H. Abelson, Groundman to Climber, Altoona District.

M. T. Hartman, Groundman to Climber, Wil-

liamsport District. B. F. Dorsey, Cable Splicer to Cable Foreman,

Scranton District. J. A. Doyle, District Engineer, Camden N. J.,

to Chester, Pa.

C. D. Laferty, District Engineer, Norristown, D. M. Cloak, District Engineer, Wilmington,

Del., to Norristown, Pa.

R. White, Groundman to Climber, Norristown, Pa., to Wilmington, Del.

W. E. Hasson, 2nd Class Climber to 1st Class Climber, Bryn Mawr, Pa.

A. A. Harrow, Climber to Combination Man,

Harrisburg, Pa. C. P. Alexander, Installer to Inspector, Harrisburg, Pa.

Hanse Hamilton, Special Wire Chief, Plant Philadelphia to C. D. & P. T. Co.

M. Wright, Location Tester to Bldg. Inspector, Cable Division to Seventeenth and Filbert—Bldg. Mechanic.

J. L. Bach, Inspector to Senior Inspector, Belmont Equipment to Spruce Central Office.

The Delaware & Atlantic Telegraph & Telephone Company

W. H. Mercer, District Engineer, Atlantic City, N. J., to Chester, Pa.

J. F. Luttrell, District Engineer, Chester, Pa., to Atlantic City, N. J.

C. Hauenstein, Draughtsman, Philadelphia to Pittsburgh, Pa.

The Central District & Printing Telegraph Company

Jas. Meredith, Lineman to Climber, Pittsburgh,

A. A. Thompson, Lineman to Climber, Pitts-

burgh, Pa. J. W. Gahagen, Groundman to Repairman,

Greensburg, Pa.

Clarence Quinn, Installer to Repairman, Union-

town to Greensburg, Pa. A. J. Thomas, Groundman to Installer, Johns-

town, Pa. H. M. Myers, Repairman to Climber, Roch-

ester. Pa Geo. Fletcher, Student to Repairman, Plant

School to East Liverpool, Ohio. O. D. Johnson, Equipment Inspector to Speci-

fication Writer, Pittsburgh, Pa. S. B. Ridge, Plant Supervisor to Supervisor of

Construction, Pittsburgh, Pa. Geo. Fletcher, Repairman to Wire Chief, East

Liverpool to Morgantown, W. Va.

D. S. Elder, Repairman to Assistant Wire Chief, Punxsutawney, Pa.

W. H. Rheam, Installer to Storekeeper, Johnstown, Pa.

George Burrell, Student to Installer, Plant School to New Kensington, Pa.

Eugene L. Houser, Student to Installer, Plant

School to New Kensington, Pa. F. A. Vonderau, Helper to Splicer, Pittsburgh

District. Edgar Carson, Helper to Splicer, Pittsburgh District.

Carl A. Hartmann, Student to Installer, Plant School to Pittsburgh District.

M. J. Sullivan, Lineman to Climber, Pittsburgh District.

J. C. Powers, Student to Installer, Plant School to Pittsburgh District.

E. E. Leonard, Lineman to Repairman, Pitts-

burgh District. Matt. Kemler, Head Janitor to Chief Janitor,

Pittsburgh District. John W. Miller, Student to Installer, Plant

School to Pittsburgh District. Geo. O. Johnston, Installer to Inspector, Pitts-

burgh District.
W. D. Maloney, Clerk to Foreman, Pennsylvania District.

J. R. Schadt, Lineman to Climber, Pennsylvania District.

J. J. Polliard, Lineman to Climber, Pennsylvania District.

C. W. Huggins, Groundman to Climber, Pennsylvania District.

Jas. A. Gardner, Climber to Repairman, New Castle, Pa.

Paul Romick, Groundman to Climber, Pittsburgh, Pa.

E. C. Greaser, Groundman to Climber, Pittsburgh, Pa.

E. G. Pritchard, Groundman to Climber, Pittsburgh, Pa.

F. J. Romick, Groundman to Climber, Pittsburgh, Pa.

F. R. Peters, Groundman to Climber, Pittsburgh, Pa.



The Philadelphia Telephone Society Orchestra

- 1. A. M. Hersch
- 2. H. E. Garrison
- 3. J. R. Valliant 4. C. C. Lee
- 5. S. H. Sauer
- 6. James Reekie
- 7. F. D. Reynolds
- 9. J. A. Joyner
- 10. W. A. Scheible
- 11. C. Ebenbach
- 8. George Hoffmann
- 12. W. Leirer

- 13. W. L. Bicking
- 14. J. Frank Shannon, leader
- 15. Geo. B. Chase
- 16. H. A. Clarey
- 17. George Miller, Jr.
- 18. Thomas McNamara
- 19. J. A. Jervis
- 20. H. L. White
- 21. T. H. Peoples
- 22. T. G. Rowand
- 23. W. Showalter
- 24. J. N. Ellis

- 25. Wm. Thomas
- 26. A. B. Scheffey
- 27. G. Bolton
- 28. W. Achuff
- 29. F. G. Brewster
- 30. J. L. Greene
- Digitized by Google



Plant Chief and
Wire Chief Taking
Operators From
Central Office
to Home

Repairmen at the Right Disconnected and Removed Telephones

Flood near Post Office

Street at Right Leads to Our Office

Repairmen Conveying
Operators
to Central Office

Marietta, Ohio Flood Views

ittsburgh Division ~ Z.Z.HUGUS, Division Correspondent

Dr. Matthew J. Shields has just finished making a tour of the Pittsburgh Division towns with his first aid lectures. For one week he was in the city of Pittsburgh, giving three demonstrations daily. Upon completion of the work in Pittsburgh he started over the division, making twenty-seven lectures in the smaller towns. Great interest was shown on the part of the Plant department employees, as well as the public and the press.

Johnstown District

The Greensburg Local Manager has secured a contract with the West End Farmers Telephone Company, a Plan "A" near Scottdale, Pa., and

to be connected with that exchange. This territory lies between the Fayette County line and the territory now served by the Reagantown Farmers Telephone Company. The new company by developing this territory will completely surround Scottdale with rural telephone lines and place our Company in a strong position in that section. The West End company will begin operations with sixteen stations.

Another Plan "A" company, known as the Rector Telephone Company, connected with the Ligonier (Pa.) exchange, has also been secured by the Greensburg Local Manager this month. The territory to be supplied lies southeast of Ligonier, at the foot of Chestnut Ridge. Seven subscribers were signed as a nucleus and the company will grow nicely.

Wheeling District Flood Trouble

(Continued from page 1)

A test showed the location to be in a manhole at Sixteenth and Main Streets. The water here, at the photograph shows, was so high that the manhole could not be reached. Nothing could be done except to await the receding of the water.

But provision had been made some time ago for a new route to South Wheeling, on Market Street instead of on Main Street. Market Street is from four to eight feet higher and the new route is three hundred feet shorter.

It was decided on the evening of the 10th that the safest course to pursue would be to order cable for the new route. Early Saturday morning work had been begun, and by noon (when the cable arrived) the ducts had been rodded and wired.

The work of pulling in the cable was immediately started, and a few jobs have been begun under more adverse weather conditions. There were from two to three feet of water standing in each manhole, necessitating a continuous pumping. A driving rain kept the workmen drenched. By 5 P.M. the cable had all been pulled in. Five straight splices and one tag splice were required, and they were completed in unusually good time. Two of the splicers completed a 400-pair straight splice in five hours' time.

At 7.30 P.M. on January 12 everything was O.K.ed in South Wheeling. J. D. Gordon, the Plant Supervisor, felt that he could not say too much for the men who did the work in such bad weather. The cablemen and supervising foremen worked practically three days without interruption.

Marietta, Ohio, was also visited by the high water. Marietta being further down the Ohio River, warnings were sounded from the cities above of the coming rise of the waters, and preparations were made to place telephones in the temporary business offices.

An effort was made to continue to furnish service as long as the subscribers remained in their places of business or residence. As soon as qualiters were to be abandoned, the instruments were lifted in order to prevent their destruction. In Marietta 415 telephones were removed.

Conditions in the other river towns, New Martinsville and Sistersville, were much the same, and in all cases subscribers were restored to service with great speed.

"Best of all," Mr. Gordon says, "no one was reported 'off' through illness due to exposure during this week of flood conditions."

New Castle District

"I would rather do without a clock than a telephone," exclaimed a New Castle woman, whose husband had asked to have the telephone disconnected. She retained the service.

Our New Castle Wire Chief recently received a call from a lady who wanted a telephone installed that afternoon. The call was received about 1 P.M., and the Wire Chief told her that we only made "rush" installations in cases of sickness or urgent need, and that if there was sickness at her home he would be glad to have it installed that afternoon provided she would sign a contract before three o'clock. She told him there was no sickness but something worse namely, her husband was going away on an extended trip. The contract was signed before the appointed time and telephone was installed the same afternoon.

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Pittsburgh District

During the year 1912 Salesman F. A. Hoffman secured nineteen applications for private branch exchange service,—an unusually good record.

The following letter was received by the Downtown Contract Manager:

Mr. C. H. Lehman,

Care of The C. D. & P. Tel. Co.

Dear Sir:—I thank you for your courtesy in the matter of installing extension telephone so promptly for me. Please express to your General Manager my appreciation also.

Yours very truly,

Samuel A. Chase.

Uniontown District

It will be of interest to various managers and salesmen who have worked or visited in Uniontown during the past six years to know that the clothing house of Brumberg & Bergman has finally discarded opposition and taken Bell service. This firm persistently refused to take our service, and five years ago Manager D. J. Murphy put up a silver dollar as the prize money for the obtaining of this application. This became so generally known that salesmen, managers, clerks and even operators tried to win the prize. money was paid to Salesman Thomas B. Reisinger, January 22, who kept after the prospect undaunted by failure after failure. When he did get the application for the main station signed he insisted that an extension station was also necessary, and they agreed. This is a concrete example of what persistence can accomplish.

Several years ago a young man entered the University of West Virginia, at Morgantown, for the study of law. When only a part of his course had been completed, he decided to enter the business field for a short while and finish his study at some future time. Accordingly he engaged in the sale of paint, his territory comprising all of West Virginia and parts of Maryland, Ohio and Pennsylvania. After building up a large trade in this business, he decided to reenter the University and complete the course of law, at the same time continuing his paint business,—taking orders by telephone. He first visited his customers in the various states with a view to ascertaining whether or not each had a Bell telephone, and found that all were equipped with Bell service, thus enabling him to fit himself for the profession of law and at the same time to earn a good income from the sale of paint by telephone. MISS HEPPLEWHITE.

Wheeling District

Dr. Shields' lectures in Wheeling, each of one and a half hours' duration, were plain and to the point. The simplest mind could not have failed to comprehend every word. Inside men and Wire Chiefs attended the talk of Tuesday evening and Construction men that of Wednesday morning.

Invitations extended to the City, Electric Light and Railway Companies' employees met with a good response. In all there was a total of sixtyone to hear the evening lecture and forty to hear that in the morning. Both audiences were interested and benefited.

"Mr. Healey at Elizabeth is calling the Parkersburg Manager and wishes him to pay for the message." Off duty because of illness, our Parkersburg Manager was represented by a member of the Wheeling Commercial force, who, at the time the call came, was out of the office. Following the call a little later, the operator advised the Acting Manager that Elizabeth had been calling



Front Street
Marietta, Ohio,
buildings
from which
seventy-eight
stations were
removed as
water rose
gradually

In some cases
the telephones
were removed
to second floors

16th and Main Streets, Wheeling, W. Va., Under Water

Additional:
Flood Views

and wished him to pay for the message. He thought for a minute and then replied that he did not know Elizabeth and she could pay for her own message.

The Rosby-Somers Coal Company, seven miles from our nearest exchange, has been solicited for service a number of times, but on account of construction necessary an application was never secured. On January 15 the Wheeling District Salesman obtained their application for direct line service, at a charge of \$147 annually, meaning that their toll business, amounting to about \$365 a year, which formerly found an outlet through other channels, will now come to us, making a total revenue for local service, mileage and tolls of \$512 a year.

The following letter, dated January 2 and written by Attorney Carl H. Smith, is a result of his election to Judge of the Common Pleas Court. It does not mean, however, that we have lost him as a subscriber.

"Gentlemen:

Please accept this as a notice to discontinue telephone 412-J at the expiration of the month. Judge Richards will keep this room after I leave, and it is possible that you may be able to negotiate with him for further service.

Thanking you for your many kindnesses in the past and for your very efficient and prompt service, I am,

Yours sincerely, Carl H. Smith."

Messenger and marline hangers at Wellsville, Ohio, have been replaced with messenger and aerial cable rings. The work was completed January 15.

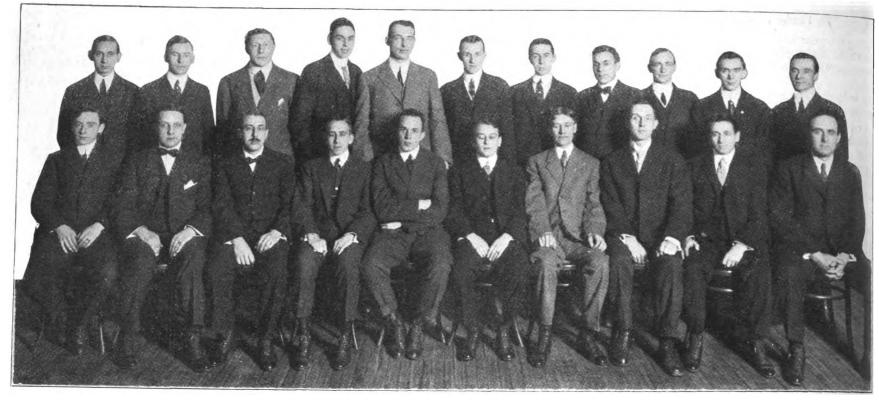
At three in the morning the B. & O. Railroad station at Waverly, W. Va., a small town about eighteen miles north of Parkersburg, was burned, setting fire to a long row of frame dwellings. The town is without fire protection but has telephone service. A call from a Waverly residence was responded to by both the Marietta and Parkersburg fire departments, who sent their fire-fighting apparatus through by special train.

If anything amusing can be related of a theft, there is probably a bit of humor in this: Two boys, eighteen and nineteen years of age, entered a wholesale produce house early in the morning and removed fourteen barrels of apples to the sidewalk. Interrupted in their work by a passing policeman, with whom it chanced they were acquainted, they asked him to assist in loading the apples into a wagon. Nothing loath he went to work and inadvertently furthered the "steal."

Later, when telephone advice of the robbery reached police headquarters, it fell to the lot of this same patrolman to arrest his co-workers of the morning while they were in the lower market disposing of their spoils.

MISS DIEHL.





The Philadelphia Telephone Society Chorus

Left to Right-Standing

- David Pierson
 T. H. Griest
- C. Brown
 P. J. McCaffrey
 J. C. Alexander
- 6. W. J. Stewart
- 7. G. G. Young, leader 8. O. W. Turnbull 9. H. Miller

- 10. C. M. Wiest 11. J. R. Bonachea

Left to Right-Seated

- Joseph Nugent
 P. C. Ragotzky
 Carl Huch
 H. P. Patchett

- 5. B. Gause
- 6. F. C. Koelle 7. J. H. Abdill 8. J. A. Finnie 9. J. Milton Connell

10. H. W. Hill

Our Societies

The Philadelphia Telephone Society

Scottish Rite Hall, S. W. corner Broad and Race Streets,

March 4, EIGHT o'clock.

Speaker: Mr. E. K. Hall, Vice-President of New England Telephone and Telegraph Company.

Subject: To be announced.

The Telephone Society of Pittsburgh

Friday, February 28, at 8 P.M. Speaker: W. R. Driver, Jr., General Superintendent of Traffic.

Subject: Not yet announced.

Camden Telephone Society

Thursday evening, February 20. Speaker: J. M. Repplier, Atlantic Coast Division Manager. Subject: "Rights."

The Spare Pair Society

6A Parkway Building, Broad and Cherry Streets, Philadelphia.

Thursday evening, February 20. Speaker: E. B. Tuttle, Assistant Engineer. Subject: "Your Share of the Transmission

The discussion after the main talk will be led by R. D. Thomas, Transmission Engineer, Pittsburgh Division, and L. C. Metz, Transmission Engineer, Philadelphia Division.

The Diamond State Telephone Society

601 Shipley Street, Wilmington, Del. Thursday evening, February 20. Speaker: A. B. Marston, Equipment Engineer,

Plant Eastern Division.

Subject: To be announced.

Atlantic Telephone Society

14 S. New York Avenue, Atlantic City, N. J. Tuesday evening, February 18.

Speaker: J. H. Carroll, Chief Clerk to Plant

Superintendent, Eastern Division.

Subject: "The Value of Good Clerical Work."

The 3290 Club

On Wednesday evening, January 22, employees of the Norristown, Doylestown, Lansdale, Jenkintown and Pottstown Districts assembled at Lansdale and organized a telephone society, adopting the name of the "3290 Club."

The club was organized with a membership of over 100, and elected the following officers: President, Joseph Blair, Doylestown; Vice-President, Herbert A. McIlwain, Norristown; Secretary and Treasurer, Walter S. Zimmerman, Norristown.

The meetings will be held on the third Monday evening of each month. The following committee was appointed to arrange a schedule of subjects and speakers during the coming year: Herbert A. McIlwain, S. C. Price and J. V. Donahue.

The dues are twenty-five cents per year, and the membership includes employees from the Plant, Traffic and Commercial departments.

The next meeting will be held on Monday evening, February 17. The speaker has not been announced.

Knock for Knowledge Klub

A new telephone society has been organized at Washington, Pa., to be known as the "Knock for Knowledge Klub." The officers are A. O. Black, Chairman, and W. F. Phillips, Secretary. Fifteen men have joined the club, the purpose of which is "to become more efficient in the telephone field."

At the first meeting an entertaining and instructive talk on "The Magneto Telephone and Its Parts" was given by J. M. Beattie.

Another New Telephone Society

At a meeting held January 29, 1913, by members of the Plant forces of Main Line, Chester. West Chester and West Grove Districts a telephone society was organized. The following officers were elected to serve until the fall meeting: J. A. McGowan, President; H. Eachus. Vice-Président; N. D. Radcliff, Secretary and Treasurer.

The enthusiasm manifested by the various members was very encouraging, and the results to be derived cannot but be beneficial. An invitation is extended to members of Traffic and Commercial departments in these districts to meet with us. This society will meet regularly on the third Thursday of each month. A name for this new society will be chosen at the next meeting.

The Telephone Society of Harrisburg

On Monday evening, January 20, Mr. J. C. Nowell, General Superintendent of Plant, spoke before The Telephone Society of Harrisburg on "Accidents." Over 200 members of the society were present and evidenced their enjoyment of Mr. Nowell's paper. Among those who talked briefly after Mr. Nowell had finished were Mr. F. C. Moody, Plant Superintendent; Dr. M. J. Shields; District Manager Eberts of Harrisburg. Coover of Allentown, and Brisbin of Wilkes Barre; J. L. McHay, District Plant Chief of the A. T. & T. Co.; and C. L. Meixel, Plant Statisti-

The Telephone Society of Pittsburgh

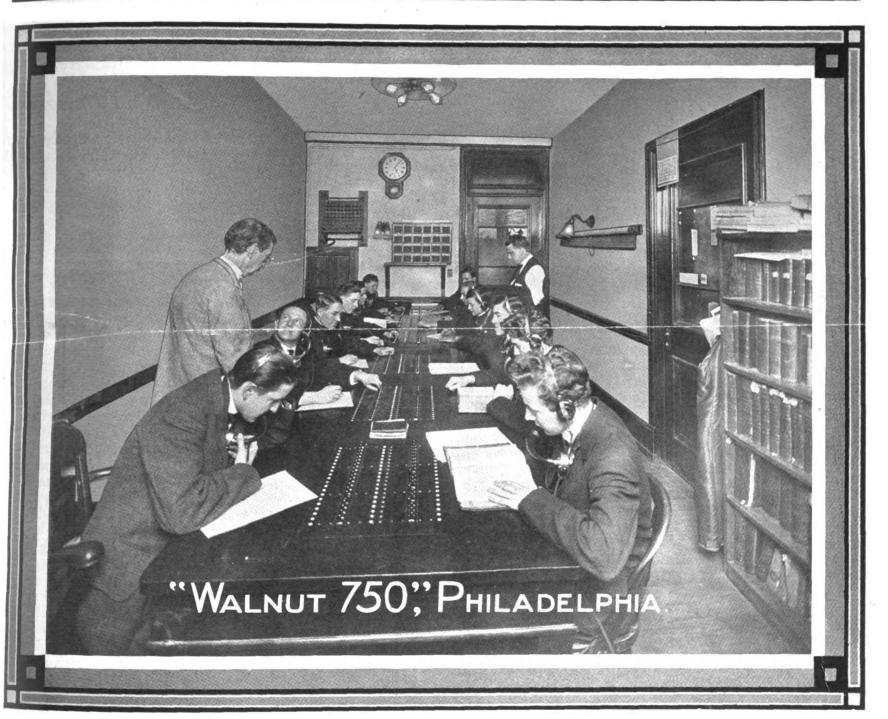
One of the most interesting and instructive meetings of the Pittsburgh society was the one held Friday evening, January 31. Mr. T. P. Sylvan discussed the Pension Plan.

Upon conclusion of Mr. Sylvan's talk, and at his request, many questions regarding the administration of the plan were asked. All of them Mr. Sylvan answered most completely.

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THE TELEPHONE AND MARCH 1, 1913

No. 5



(For names see page 16, column 3)

Walnut 750 he North American Information Bureau, Philadelphia

NUMBER that is called 48,100 times in one day is worth investigating. When the number is that of an information bureau where they never say, "We don't know," ovided your question be halfway "reasonable," our curiosity gets the better of you and you restigate.

(Continued on page 3)

Repairing Aerial Cable
By Z. Z. Hugus, Division Correspondent

THERE is an aerial cable river-crossing at California, Pa., about fifty miles south of Pittsburgh, on the Monongahela River. It consists of a 50-pair, No. 22 gauge cable hung on a 16,000-pound strand. The great length of this section and the necessary sag have rendered necessary a 16,000-pound supporting mes-

(Continued on page 4)

Transmission Equivalents
By R. D. Thomas, Transmission Engineer, Pittsburgh

HIS subject of transmission has so many different branches that it is impossible to take up more than one of them at a time, and to-day I am merely going to give some sample calculations of transmission equivalents in order that you may see the relative values from a transmission standpoint of the various parts of

(Continued on page 5)
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THE TELEPHONE NEWS

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania
The Central District & Printing Telegraph Company
The Delaware & Atlantic Telegraph & Telephone Co
The Diamond State Telephone Company

F. H. BETHELL, President
I. H. KINNARD, Second Vice-President
I. H. KINNARD, Second Vice-President and General Manager
W. S. PEIRSOL, Sec'y and Treas.
J. S. WILEY, General Auditor
J. H. CROSMAN, Jr., Gen'l Com'l Sup't J. C. NOWELL, Gen'l Sup't of Plant
W.R. DRIVER, Jr., Gen'l Sup't of Traffic, H. HAYWARD, Engineer
P. O. COFFIN, Auditor of Receipts
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Managing Editor, E. H. HAVENS, 17th and Filbert Streets, Philadelphia, to whom all communications should be addressed

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Vol. IX

MARCH 1, 1913

No. 5

To Stenographers

NEW YORK man, high in the typewriter industry and particularly interested in developing a satisfactory trade force from the woman stenographer and typewriter, says that he would tabulate a woman's chance of success in the work as 50 per cent. personality, 30 per cent. general education and 20 per cent. technical education.

Taking the phrase technical education to include all specialized preparation for shorthand and typewriting it is surprising to note how little importance it is given in this schedule. "Why, surely a typist's chief asset is her ability to typewrite and take dictation," you will say. But is it? It is, certainly, the first thing required of her, and without it she would not be a typist at all. Just as a physician must have a certain amount of technical knowledge before he can be licensed to practise as such, so a stenographer must have a certain amount of technical knowledge before she can hope to be considered a stenographer. It is fundamental, it is expected; hence, for it she gets the least credit. Without it she would not existas a stenographer.

General education, to be sure, covers a great deal. In this particular case it covers the whole field of knowledge outside of shorthand and typewriting. When one considers, however, how wide the field is which business covers, it is not startling that so much emphasis is laid on general education. The ability of a stenographer to grasp her employer's business and attitude is invaluable and is almost absolutely dependent on that indefinite thing—general education.

But what is this quality—personality—upon which as much weight is thus placed as on both the other factors of success? The dictionary tells us that personality is "the attributes, taken collectively, that make up the character and

nature of an individual; that which distinguishes and characterizes a person," that it is "the personal exterior." Not the dress nor the facial expression, but the more intangible qualities, the manner of speech, the mode of thought, one's honesty, one's frankness and one's habits. These, then, are the important factors of success.

These are the things for which the ambitious stenographer must watch. A pleasing personality may be cultivated. It is not necessary that one be born with it.

Results

THOSE men of the auxiliary membership committee of The Philadelphia Telephone Society who have met with such splendid success during the season of 1912-13 are as follows:

S. P. Allmond, J. R. Anderson, E. P. Bardo, H. Boulter, J. Boyle, A. Bowen, W. Breese, J. M. Brown, Jr., J. H. Carroll, O. D. Dunlop, H. B. Engle, C. R. Fairchild, J. D. Ferry, L. C. Gainor, J. J. Gimbel, Jr., C. Godfrey, H. Hamilton, W. C. Hartranft, G. D. Heald, J. T. Hindle, J. H. Hons, D. C. Hosfeld, W. P. Hull, J. D. Kennedy, P. C. Kramer, F. L. Lancaster, W. F. Laudeman, C. O'D. Lee, Jr., M. E. Lescure, T. B. McClain, J. T. McQuaide, F. H. Malatesta, H. Mathews, A. D. Merrick, J. F. Osborne, R. M. Patterson, P. J. Porter, W. Raynor, L. B. Reel, W. F. Repp, A. DeB. Robins, G. R. Scott, C. H. Slater, C. B. Smith, W. L. Smith, S. F. Stringfellow, J. Switzer, S. E. Tinkler, Jr., T. Wistar, Jr., W. W. Young, E. B. Zerman and W. Zerman.

While some of these names were published in our November 1 issue, it is thought that this complete list will be of use to those who will join between now and the fall of the present year, when a new committee will be appointed. Names of applicants may be referred to any of these men, who will see that application forms are forwarded.

The success met in Philadelphia by an auxiliary membership committee may prove of aid to those interested in telephone society work in other parts of the territory.

A New Use!

Vork Sun records one more use of the telephone.

According to its correspondent, the French Academy of Sciences has been advised of the discovery that the telephone is the best method for telling comes along automatically.

whether or not wine is free from acid The plan, it is said, is to pass a telephone wire through a vat or cask of wine, and if it is pure the words of the speaker at the other end are distinctly heard; should it contain an acid, the words will be indistinct. "Thus," concludes the new item, "Alexander Graham Bell adds considerable to his fame."

Like many of the reported "new uses," this latest one is apt to bring a smile to the face of the telephone technician. It is indicative, however, of the spirit of the times—people are hunting new uses for our stock in trade.

"Positive Value" Employees

THE other day an efficiency expert said, "Up to a certain point the work of every employee is of negative value to his employer." Quite true; we all realize we must do work equivalent in money value to that sum which stands opposite our names on the payroll, and to cover our "voucher" expense, or the Company will lose money by having employed us.

But that "certain point" the efficiency man spoke of, where is it? That's the question. How much service must we return to the Company before we can be said to be good investments?

Our salaries and incidental expenses are direct and it is obvious that they must be "paid for" with services,—but that is not all. How much supervision do we require? Isn't that our expense? We are consuming someone else's time just as long as he devotes himself to some job over which our responsibility reaches. Where we put something "up to the boss" that should be decided by us, we are raising that "certain point." We are costing the Company money.

Then, too, an employee is an expense regardless of salary to himself and his boss. It costs money to prepare the payroll and his pay-check, to keep employment records, and that sort of thing.

The real moral to the story, and we're sure there is one, is for each employee to realize the many factors which enter into determining where lies the point which divides positive and negative values. Before we're sure we are worth the money the Company pays us, let's be dead certain that we are giving the fullest measure of service, that we are doing our job so as to keep the cost of that job as low as possible. The efficiency of the employee depends upon his positive value. Let us be sure our value is positive and that it's as high as we can make it. When this is accomplished, advancement, without any doubt, comes along automatically.

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Walnut 750

(Continued from page 1)

Walnut 750 is the call number of the North American Information Bureau. The bureau is located in a room on the eighteenth floor of the North American Building, Philadelphia. Nearly all of this room is occupied by a 12-position telephone table. It has its peaks and its busy season. The busy season is almost coincident with the baseball season, but a big fire or any unusual occurrence will cause the North American to be deluged with calls,—sometimes without warning.

If the special occasion is known about beforehand, as in the case of a presidential or local election, additional equipment is provided to take care of the expected peak load. The entire equipment is given a thorough inspection so that the North American may be sure that its equipment is in the best possible condition. This plan reduces to a minimum the possibility of a serious fault developing at a time when the demand for information is enormous. Each operator is assigned four of the incoming lines, and when he is not busy on any one of these, he relieves other operators at the direction of the supervisor. The table regularly has an equipment of 40 trunks, 20 of which are cut into the Walnut central office and 20 into "Spruce." Each of these incoming trunks is multipled before each position so that there is no difficulty in one operator taking up another operator's trunk or any trunk line on the table. At the time of the last presidential election, in addition to this regular equipment, ten trunks each to Poplar, Preston, Belmont, Market, Tioga, Kensington and Diamond, and five trunks each to Germantown, Woodland and Toll central offices, were added to facilitate the service. These additional trunks were terminated on special desk sets in another room of the building, where a duplicate of all the election news was posted as it came in. Special routing instructions were issued to all supervising operators to avoid congestion on any one series of interoffice trunks.

Special equipment also makes it possible for the operator, by reversing his answering-key, to hold the subscriber's line while he obtains information over another line from some outside

From the beginning of the baseball season it is necessary to have nearly every position covered every afternoon from four until seven. One man calls the North American every day during the season from Tamaqua, Pa., a long-distance point, and it is not in the least unusual to get calls from Delaware, New Jersey and other points in Pennsylvania.

During August, 1911, the year when the Philadelphia Athletics won the World's Series, the North American answered an average of 4394 calls a day between 4 and 7 P.M. and 937 calls during the busiest half hour of the day.

During the World's Series on October 13 of the same year, when the Athletics were playing in New York, the North American handled 35,500 calls between 2 and 7 P.M. This is a record for calls handled, although on the evening of Mayor Blankenburg's election 48,100 calls were made for Walnut 750.

The North American receives a great many semi-foolish questions, and it is interesting to know on what resources it depends for the answers to these. First, Mr. Potts and Mr. Doyle, who have charge of this bureau, are geniuses at this sort of work. You would be amazed if you could sit beside them during a busy hour and hear the many different questions which they

answer without reference to any other source of information. Next in importance to political and athletic events is the "Day Book" which is made up from newspaper clippings of the different happenings scheduled for each day. A great many questions are answered by consulting the newspaper's "morgue" or reference room. Besides these resources the bureau has a reference library of its own containing an encyclopedia, maps, atlases, telephone directories of all the principal cities of the United States, books on etiquette, sporting handbooks, etc.

During the school season it is a common occurrence for children to call the North American for information necessary in doing their lessons, and the information bureau has even been asked to solve mathematical problems.

To give an idea of the difficulty of the work which the North American is doing, here are a few questions from an actual record of one day's requests:

Cost of Mrs. Sharpless Bread Mixer?

Date of Steve Brodie's jump off Brooklyn Bridge?

Is there a vegetarian restaurant in Philadelphia?

The three largest poultry plants in Pennsylvania?

Question on etiquette at social functions.

Name of cake which is passed between towns in India as a signal for an uprising?

What states have whipping posts?

How did the Jasper basketball team make out last night?

What kind of a neighborhood is North Dewey Street?

The divorce laws of New York State? Is the "White Elephant" still at Atlantic City? Is there such a word as "buncoed"?

Was the Majestic Hotel on fire to-day? What train will get me into Norristown this evening in time for the fight?

How can I get a marriage license in Norristown?

Did the Home Rule Bill pass?

Should a man wire his divorced wife regarding the death of his father?

And remember these are just a few from some 300 questions on a comparatively dull winter day.

"Big Pete" Jensen



"Pete" Jensen, commonly known as "Big Pete," is the Foreman of Toll Gang No. 5 in the Plant Eastern Division. He entered the employ of the Telephone Company in the latter part of 1909. At that time he was employed by E. H. Bancroft, the "Apple King," near Camden, Kent County, Del.

It happened that a telephone construction gang was doing some work along the highway passing the Bancroft orchards, which cover 165 acres. "Pete" was attracted by the work the gang was doing, applied for a job, was taken on, and soon was advanced to his present position.

"Pete," in addition to his ability as a Construction Foreman, is noted for his size and genial disposition. It is doubtful whether there is another man in the Company's employment in this vicinity of the size and weight of "Pete." His height is 6 feet 4 inches, and his weight 286 pounds. He is very active and has exceptionally good wind. He can climb poles and, in spite of his weight, can do almost anything that any good lineman would be expected to do. It's not necessary for him to stand on the projection of the cross-arm; he can reach the end of it with ease from the pole. It is an ordinary thing for him to load a thirty-foot pole on a pole "dinkey" or wagon.

"Pete" has five brothers and one sister. All of the brothers are over six feet in height. The combined height of the family, including "Pete's" father and mother, is 54 feet 9½ inches.

Love and Locksmiths

"Love laughs at locksmiths," said Colman a hundred years ago. "And the telephone aids and abets the laughter," we of the present day might add. One morning during the recent smallpox scare in Philadelphia the occupants of The Newport, a large apartment house at Sixteenth and Spruce Streets, found the house surrounded by police and them-selves quarantined,—and all because one of the men who was ill with the smallpox had worked there some days before assisting the janitor. Of course, one could escape the quarantine by being vaccinated, and there were plenty of physicians on hand to do the work,—they vaccinated over 2000 people in less than twenty-four hours; but there was one young woman living in this apartment house who resisted the municipal official that had so decidedly said, "You are a prisoner unless you submit to vaccination." This young woman's father had lost a limb, as she said, on account of infection resulting from vaccination, and a good friend of hers had developed lockjaw and spinal meningitis, which she also attributed to similar infection. She could hardly be blamed

for being opposed to vaccination when her opinions were so strong, and yet the court to which she appealed for an injunction to prevent the Bureau of Health from restraining her longer decided that the law was very clear on this point and that she would either have to be vaccinated or observe the quarantine.

Now this young woman's engagement had been announced but a few days before, and while she could not bring herself to submit to vaccination, on account of the unfortunate experiences she had observed, neither did she want to be separated from her fiancé for eighteen days. The telephone solved the problem, as was discovered in rather a humorous way. A newspaper reporter tried to call the quarantined young woman at intervals for what seemed to him a long time, but the line was reported "busy." When he finally did get through to her, the reporter asked if she had not been talking to a certain young man. She admitted that she very probably had. She admitted also that the conversation had lasted a considerable time. "It's such a perfect day and things look so bright that I should like very much indeed to be out," she added. "In fact, if it weren't for the telephone I am afraid I could hardly stand it."

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Repairing Aerial Cable

(Continued from page 1)

senger which is strung across the river. To this the cable messenger is clamped at five equidistant points. The purpose of this supporting messenger is both for strength and to keep the cable at sufficient height above the river so that it will not interfere with navigation. The crossing is 961 feet long, and is about 100 feet above the water on the California side and about 200 feet above on the opposite side. On the higher end, the river-crossing pole is set partway up a high

During a recent severe flood a boat with an extremely long boom which was being used in the construction of a new Pennsylvania Railroad bridge at Brownsville, three miles south of California, broke from its moorings and floated down The cable was hung with marline hangers, and the boom was evidently just of sufficient height to catch the cable without touching the messenger. The cable was torn from the messenger wire by the hooks straightening out and the marline ties breaking for a distance of seventy-five feet, and when the cable finally slipped off the boom it sprung back with such force that it wrapped itself six complete turns around the messenger. This was fortunate, as it doubtless saved the cable from being stripped of its hooks for its entire length. The weight of seventy-five feet of cable hanging unsupported

one side of the bolt to the other, and then crawl back into the cable buggy. These bolts and supporting messengers can easily be seen in the photograph.

Several splicers volunteered to go out to examine the extent of and repair the damage, but only one, J. J. Kandel, succeeded in accomplishing this purpose. The great height, the steepness of the messenger and the sight of the rushing water caused the others to give up and return to the shore, when it came to getting out of the buggy at the supporting bolts. They all made gallant efforts, however, and deserve credit for their attempts. Kandel was formerly a structural iron worker, and this particular job seemed to him

like getting back home.

All possible precautions for safety were taken. Boats were in readiness at the shore in case of an accident, and the splicer used two safety belts in changing over this buggy. With one belt he clamped himself to the messenger as a safeguard to prevent falling, and with the other he clamped the messenger, only using it as a stirrup. The splicer crawled out of the cable buggy and stood in the stirrup while he moved the buggy to the opposite side of the supporting bolt. He then crawled back into the buggy and continued on to the next supporting bolt, when he again repeated the operation.

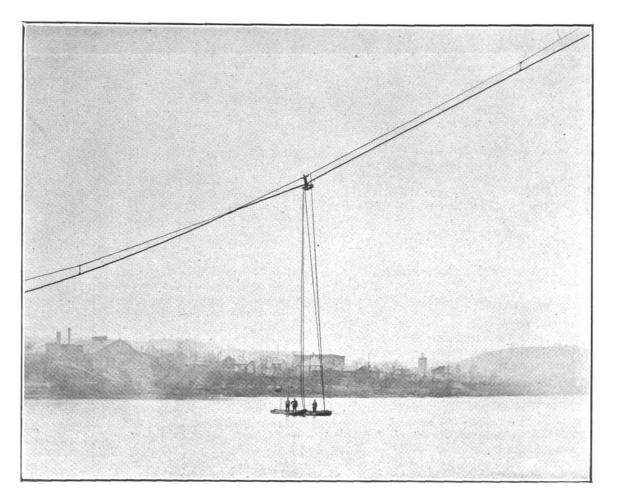
The total extent of the damage to the cable was two holes in the lead sheath about fifteen inches apart where bolts in the boom had hit the cable. Considerable slack was also pulled into

this point the water was about twenty-five feet deep and running swiftly. The flat-boat was securely anchored by means of old mine carwheels, a number of which were found on the bank. The splicer dropped a marline line to those in the flat-boat, and a hand-line was attached to this which he pulled up. His assistants then pulled up to him a splicing platform which he fastened to the messenger and which was securely guyed to the flat-boat. The tools were then sent up to the splicer and he removed the defective sheathing and cut out the necessary slack. The opening in the cable was closed by means of a split lead sleeve. The paraffine and metal used in closing the splice were heated in the flat-boat and pulled up by means of the hand-line.

The entire time the splicer spent on the scaffold in clearing the trouble and closing splice was about five hours. This included a short time

spent in eating lunch.

Another danger was due to tow-boats passing These boats are frequently towing barges whose combined area is often several acres. These tows are very cumbersome and awkward, and as the flat-boat was anchored directly in the channel, and also due to the swift current, the tow-boats had to do some very difficult maneuvering to avoid collision, but fortunately not a semblance of an accident occurred. The men were none the worse for their experience, nor was service interrupted in any way. P. J. Vonderau was the cable foreman directly in charge of the job.



Rural Telephone Lines Pay

The following editorial thought came from one of the Pittsburgh Division newspapers published in a town where rural lines are quite plentiful:

"The success' which has marked the course of the Ligonier Valley Telephone Company during the past six years is but typical of the results achieved by the rural telephone lines in our own section. It has been the rule, almost invariably, that the rural telephone system has prospered when managed by men who have taken an interest in its affairs.

"The family living in the country has been quick to avail itself of the advantages of communication with neighbors as well as with the outside world, and the rural telephone line, almost without exception, has proven a success.

"Moreover, if the advantages of the telephone have been appreciated in the past, they are found to be even more so in the present now that the Parcel Post has come into use.

"The ability to telephone to neighboring towns for something needed in the home, or in the barn. or upon the farm, and to have it arrive when the rural mailman makes his next delivery, is something that is bound to loom up as one of the most valuable adjuncts of the telephone service, and we may expect to see the rural lines branch out still further, as one of the results of the conveniences offered by the Parcel Post.

Toll Rate Change

An important change in toll rates, effective January 21, is announced in this issue of the Philadelphia Directory. To all points where the rate from Philadelphia was 20 or 25 cents for three minutes, the same rate has been made effective on twonumber calls for an initial period of five minutes. Hereafter, on calls to these points for a particular person, a charge of 15 cents will be made if the person asked for cannot be reached.

would have been too much for the old hangers. It would have been a difficult operation to repair this trouble under any circumstance. The job was more difficult owing to the fact that bolts connected the supporting messenger with the cable messenger. It was therefore necessary for the cable-splicer to get out of his cable buggy at each of these supporting bolts, change the buggy from

the cable at this point. In repairing this trouble, after the entire cable was rehung with doubleshank aerial rings, as the marline hangers were deteriorating, a large flat-boat was secured on which was placed all the necessary tools and material. It was then towed out into the river directly under the damaged portion of the cable. This was directly in the river's channel, and at

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Transmission Equivalents

(Continued from page 1)

a telephone circuit.

The vitality of a telephone circuit depends upon the quality of the transmission. It is in a measure, the liveliness of the circuit. If you have a long spiral spring and hit a blow on one end, the force of the blow received at the distant end

the transmission will be said to be one mile. If it be 18 miles, the transmission will be said to be 18 miles. Figure 1 shows this circuit having 18 miles of trunk cable. It will give a transmission of 18 miles, or, as it is generally said, it will have an equivalent of 18 miles. For a connection between two subscribers, one located in Grant and one in Wilkins, the trunk and equivalent are made to give a transmission equivalent of 18 miles. The circuit shown in Figure 1 will therefore "talk up"

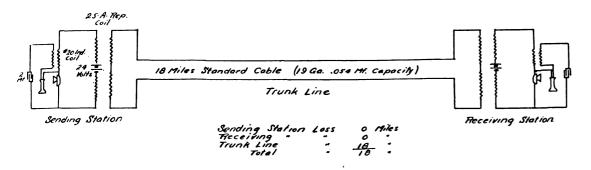


FIGURE 1.

will depend upon the transmitting quality or liveliness of the spring. You may take a certain spring and call it a standard and compare all other springs with it. If you hit the standard spring with a blow at one end, it will transmit a blow of a certain force to the other end. If you hit another spring with the same blow as you hit the standard spring, it may transmit only half the force that the standard spring transmitted. Perhaps the second spring was twice as long as the standard, and we say in telephone language that it has twice the equivalent or is only one-half as good as the standard. Perhaps the second spring was of the same length as the standard but was made of a different material, we would still say it had twice the equivalent.

If you have a telephone circuit and hit it with a sound-wave at one end, the loudness of the sound received at the other end will depend on the transmission qualities of the circuit. If we set up a certain telephone circuit and call it a standard, we may compare all other circuits with this standard. This is exactly what is done to learn the transmission equivalent of any telephone circuit.

We set up a standard telephone circuit consisting of two common battery instruments, supplied with current from a 24-volt battery through 25-A repeating coils and separated by a trunk line. If this trunk line is made to consist of a pair of wires in a 19-gauge cable having 88 ohms per mile resistance, and a capacity per mile of .054 microfarads, the length of this cable will be a measure of the transmission of the circuit. If the trunk line is one mile of this standard cable,

the same as a connection between Grant and Wilkins. This is our standard transmission between metropolitan offices in Pittsburgh.

If we make the cable trunk 21 miles long, we shall have a circuit which will "talk up" the same as a circuit from a suburban office to a metropolitan office in Pittsburgh. When the trunk becomes over 30 miles in length we begin to experience difficulty in hearing; in other words, we are reaching the commercial limit of transmission. It therefore becomes necessary to keep the trans-

ure 1, you will note that there are no subscriber loops and no switchboard equipment with the exception of the 25-A repeating coils which form a part of the standard circuit. If we place a 300-ohm, 22-gauge cable loop between each instrument and its repeating coil, it is very evident that the circuit will not "talk up" as well as formerly; in fact, it will be necessary to reduce the trunk by 11.1 miles and make it only 6.9 miles in length to get 18-mile transmission. In other words, the transmission equivalent of the subscriber loops is 11.1 miles. This circuit and the various equivalents are shown in Figure 2. You will note that the receiving subscriber does not have as large a loss as the sending subscriber. If in addition to the subscriber loop we place the equivalent of a No. 1 switchboard, "A" cord circuit at one end and a "B" cord circuit at the other end, we again have to reduce the trunk this time by 1.4 miles in order to maintain the 18mile circuit equivalent.

Figure 3 shows this circuit, which is a standard trunked connection having an equivalent of 18 miles.

Figure 4 shows diagrammatically the proportion of losses in the different parts of the circuit shown in Figure 3. The great importance of careful maintenance of subscriber loops and equipment can be readily seen when we realize what a large proportion of the total losses is involved in these two items. Next in importance to the subscriber loss is the trunk loss. The switchboard loss is comparatively small but very important, because small switchboard troubles will increase it greatly.

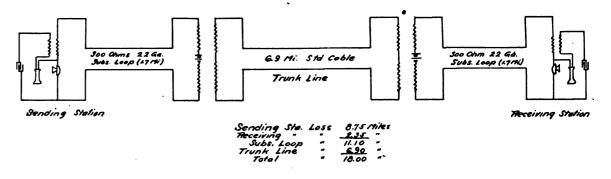
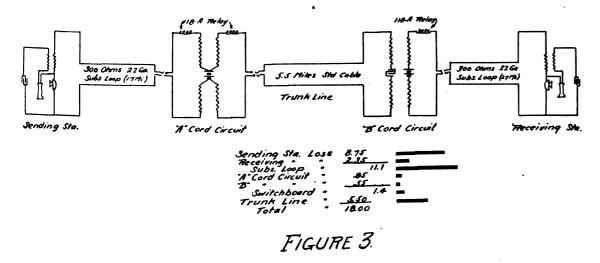


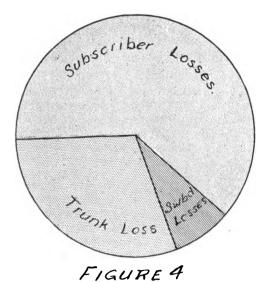
FIGURE 2

mission equivalent of our circuits under 30 miles in order to give satisfactory service to the public. The limits we try to keep in this division are: A metropolitan office to a metropolitan office, 18 miles; a suburban office to a metropolitan office, 21 miles; a suburban office to a suburban office, 24 miles; between toll offices, 25 miles.

Referring again to the standard circuit in Fig-



The length of trunk line in Figure 3 is given as 5.5 miles of standard 19-gauge low capacity cable. The first question that will be asked is, how long will this trunk be if it is not made up of standard cable? Let us suppose that it is to be the 19-gauge high capacity cable that is so universally used for trunk cables. What will be its length in order that we may not exceed the 18-mile limiting equivalent for the circuit? 19gauge high capacity cable has an equivalent of In other words, 1.2 miles of standard cable will equal 1 mile of 19-gauge high capacity cable. It is therefore evident that we cannot have as long a trunk in 19-gauge high capacity cable as we could have with the standard cable. The actual length of trunk we may use will be 5.5 miles divided by 1.2 or 4.6 miles. In actual practice in the Pittsburgh metropolitan area we do not place any trunks over 5 miles long in 19-gauge non-loaded cable. To find the actual length of any size of conductor that may be used for a 5.5-mile trunk equivalent it is merely necessary to divide 5.5 miles by the equivalent of the conductor. These equivalents will all be found in the "Bulletin of Transmission Equivalents" recently issued by the A. T. & T. Co.



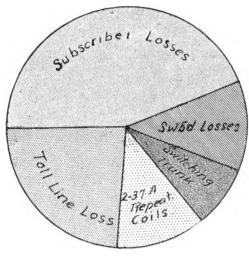


FIGURE 5

Figure 5 shows diagrammatically the proportion of losses in a toll connection to Pittsburgh which has 25-mile transmission. It is assumed that the connection is over a side circuit having phantom repeating coils; you will see what a large proportion of the loss is occasioned by these coils. For this reason long circuits should not be phantomed as they reduce the transmission on the side circuits by a very appreciable amount. If the repeating coils were removed from the circuit, the toll line itself could be lengthened by the equivalent of the repeating coils, or 3 miles, which is the same as 38 miles of No. 12 N.B.S. copper wire. One mile of No. 12 N.B.S. copper wire has the same value as .08 mile of the standard cable; therefore the 3 miles equivalent of the repeating coils equals 3 divided by .08, or 38 miles of wire.

Figure 6 shows the proportion of losses in a toll connection switched at Pittsburgh. The first diagram in the figure shows the losses using two side circuits, and the second shows the loss without any phantom repeating coils. It can be seen what a large reduction in the permissible length of the trunk is caused by the phantom repeating coils.

In Figures 5 and 6 the length of the toll line is given in its equivalent of standard cable. To find its actual permissible length and not run over the total permissible transmission of 25 miles it is necessary to divide the equivalent in the diagram by the equivalent of the various conductors making up the circuit. The equivalents of these conductors are given in the Transmission Bulletin and I shall therefore only give you a few of them:

| 19-g | auge | non- | -loadec | 1 cable | ٠. | • | • | • | | • | • | • | • | • . | 1.2 |
|------|------|------|---------|---------|----|---|---|---|----|---|---|---|---|-----|-----|
| 20 | | | 44 | | | | | | | | | | | | .78 |
| | | | " | | | | | | | | | | | | |
| | | | opper ' | | | | | | | | | | | | |
| 12 | 46 | | ** | • • • | | | • | | ٠. | | | | • | | .08 |

These figures only hold good for lines having high insulation. Toll lines from their very nature are most exposed to conditions which make for low insulation, and its effect on transmission is shown graphically in Figure 7 for various points deflection on a wire chief's 10,000-ohm voltmeter with 40 volts testing battery. A toll line made up of 2.5 miles of No. 12 copper wire is represented in length by the first line. The other lines represent the length of this 2.5-mile line would appear to be

with various deflections of the voltmeter. You can note that a 10-volt ground will apparently increase the real length of the line by about 32 per cent.

This, however, is only a portion of the loss occasioned by low insulation, because as soon as the insulation becomes low the line becomes noisy, which still further adds to the difficulty in talking over it. A line which has low insulation is merely one which is connected to the ground by a conductor having greater or less resistance. ground may be considered as a vast lake of water whose surface is constantly rippled by the electric waves of power lines, trolley lines and telegraph lines. These lines are all more or less connected to the ground and keep it in a constantly electrically disturbed condition. Low insulation on the toll line connects it to this lake of electrical vibrations and gives the vibrations a path by which they may enter the line, and we all know how thoroughly they take advantage of the opportunity. There is no way of measuring the apparent increase in the length of the circuit caused by this interference, but it is a very real transmission trouble and one that should receive the most careful attention. It is due more frequently to low insulation than to any other cause.

To return to the subscriber loop losses shown in Figures 2, 3 and 4, it was noted that the losses at the sending loop were greater than for the receiving loop. The reason for this is that the loop from which the talking is to be done at any moment has a double loss. The first is the loss due to the reduction in the direct current flowing through the transmitter from the central office

battery. This is effected entirely by the resistance of the circuit and, of course, is present at only one end at time, the end at which the talking is being done. It is known as the battery supply loss and is measured in miles of standard cable

The second loss is occasioned by the reduction of the alternating current voice-waves, and is effected by both the capacity and resistance of the cable pair. It will be readily seen that these alternating current voice-waves will encounter this loss in the receiving loop as well as in the sending This loss is known as the attenuation or high frequency loss, and is likewise measured in miles of standard cable. As to the value of these losses, the battery supply loss for a 300-ohm loop is 6.4 miles, while the attenuation or high frequency loss for the same loop in 22-gauge cable is 2.35 miles, making a total for the sending loop of 6.75 miles, while the receiving loop has only the one loss of 2.35 miles. As the battery supply loss is the largest proportion of the total subscriber loop loss, and is dependent entirely upon the resistance of the circuit, it will be seen how important from a transmission standpoint it is to keep the subscriber line clear of high resistances which will tend to reduce the supply of current to the transmitter.

The attenuation or high frequency loss is dependent upon not only the resistance of the circuit, but also its capacity, and is greater for 19-gauge than for 22-gauge. If, therefore, we set a certain resistance of 22-gauge cable as the limit for subscriber loops, we cannot use a loop of the same resistance, or, in other words, double the length of 19-gauge cable.

Limiting resistance for subscriber loops have been determined for this division as follows:

1.7 miles or 300 ohms of 22-gauge cable in Pittsburgh
2.0 " " 350 " " " " " " Wheeling
2.3 " " 400 " " " " " All single
office districts.

When it becomes necessary to string subscriber cables exceeding these limits, enough 19-gauge cable must be used to obtain the same losses as would be obtained were the limit in 22-gauge cable used. The amount of 19-gauge cable that will be required can be obtained from curve plates 442 and 444 in file. As I said before, the resistance of a loop made up of part 22-gauge and part 19-gauge will be less than if it were made up totally of 22-gauge, due to the greater attenuation loss per mile in the 19-gauge cable. A loop made up totally of 19-gauge may have only 243 ohms of cable to give the same loss as 300 ohms in a 22-gauge cable. Its actual length will of course be greater than the 22-gauge, being 2.8 miles as against 1.7 miles for the 22-gauge.

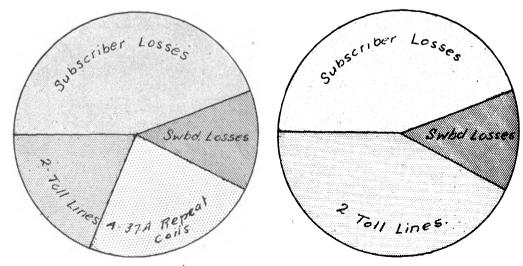
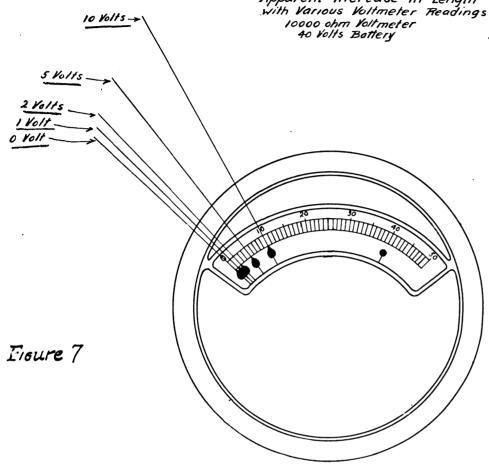


FIGURE 6.

TOLL LINE INSULATION

2.5 Miles No. 12 N.B.S. Copper. Apparent Increase in Length



Traffic Codes

Below are the codes used by the operators of The Bell Telephone Company of Pennsylvania, The Central District and Printing Telegraph Company and The Delaware and Atlantic Telegraph and Telephone Company in passing reports over the toll circuits and in noting reports on the back of toll tickets. These are especially useful to collectors and adjusters in explaining toll charges:

A.B. Anyone who can talk business.

A. G. Try number -- again.

Apt. Appointment call.

Auto Automatic pay station.

A. Y. Anyone.

B. N.R. Messenger not returned.

B. P. Party called for (or party calling) busy personally.

B. Y. Telephone busy.

C. A. Cancel.

Cannot find.

C.H. Changed to C.O.

Chief operator. Does not answer.

D.C. Did not call.

D. G. Don't get.

Discontinued.

Give firm name of party called.

Find party called for. G. B. A. Get better address.

H. P. Hold your party.

I.B. Information operator.

K. T. Unable to get party to talk.

L.D. Long distance.

L.F. Left telephone.

L.K. Telephone reached and looking for party.

L.N. Looking for telephone number.

L. W. Leave word.

M. G. Messenger.

M. G.—O. K.—C. A. Send messenger, but cancel if party is not in.

M. G.—O. K.—L. W. Send messenger, leave word for him to call if out.

Telephone has not answered yet.

No circuit available.

N. C. O. No circuit available, call order left.

N. C. R. No circuit available, call order or report relayed.

N. F. No telephone listed.

N. H. Not there. N. R. G. Not registered at number called and cannot find.

O. D. Out of order.

One of firm. O. F.

Correct or completed. O. K.

O. R. Report on number

Party line; which party do you wish?

Party has not called. (Used with messenger call only.)
P. R. Operato

Operator.

R. N. Name asked for but not given.

R. X. Through operator.

Supervisor. S.R. Time allowed. U. Out; expected

Out; do not know when will return. U.D.

U.N. Unknown.

U.X. Not there; not expected to-day.

W. D. What department?

W.H. We have.

W.O. Give name of party calling.

W. T. Will talk at ——.
W. X. Which one is wanted?

All operating codes of the American Telephone and Telegraph Company are included in the above list with the exception of:

F.O. Party called has no Bell telephone, but will be called to nearest Bell telephone without charge if you so desire.

H.O. Party called has no Bell telephone, but will be called to nearest Bell telephone if you so desire. There will probably be a small charge for this service.

Standard Station Classifications

The Accounting Bulletin 103B of the A. T. & T. Company of December 31, 1912, under the above heading is to govern in compiling station statistical records for our combined Companies.

In it these changes are made:

The term "Company Stations" is substituted as a heading for "Owned Stations," and "Main Stations" for "Exchange Stations." All stations attached to cordless monitor switchboards and to No. 2 private branch exchanges are to be classified as private branch exchange stations. If a portion of the lines from certain stations to a Company-owned private branch exchange switchboard is owned by the subscriber, the stations are to be considered "Company Stations" and not "Service Stations." If, however, the private branch exchange is owned by the subscriber, these stations are to be considered as "Service Stations.

Bell Service Advertised in Motion Picture Theater

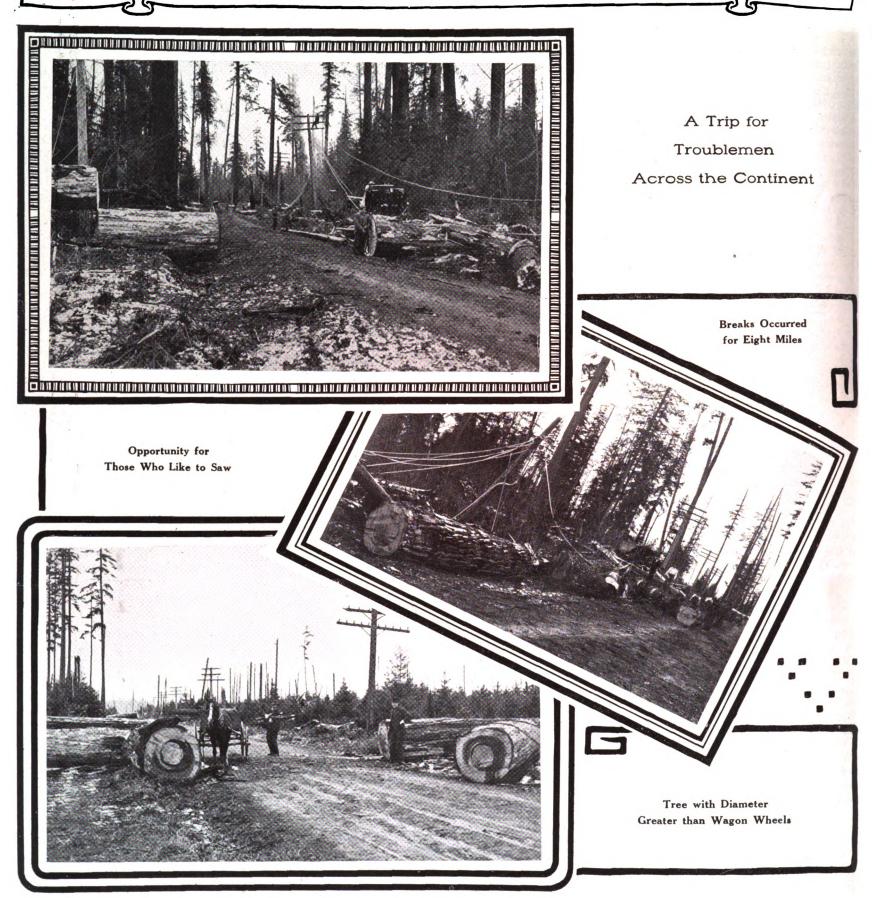
The Shamokin (Pa.) Local Manager conceived the idea of advertising Bell service by means of stereopticon slides in a motion picture theater. He accordingly had six slides prepared, each of which told a story emphasizing the value of Bell service in much the same manner as our current newspaper advertising. He arranged with the manager of the Savoy Motion Picture Theater to have these slides displayed on Thanksgiving, Christmas and New Year's Day.

On these three days each of these six slides was shown four times to over 2500 people, making a total of 72 displays to 7500 people. As a direct result of this advertising applications were ob-

tained for 16 stations.

Violin, cornet, flute, clarinet, French horn, trombone, bass viol, piano, snare and bass drum-in the orchestra as well as well trained voices in the chorus—are a part of the preparations for Monday, March 3, at EIGHT o'clock. We hope there will be room for all to be comfortably seated. However, the Scottish Rite Hall, with upholstered scats, accommodates 1200. Broad and Race Streets is convenient to all train and trolley service. Be prompt. Remember change of date.





ROUBLEMEN in our own as well as other territories have their own difficulties in keeping lines and stations in service. This has been particularly true in line work in New Jersey after heavy sleetstorms have been experienced. One does not have to be a pioneer to remember three or four serious storms which laid pole lines low for long stretches.

In 1902 and 1908, and even more recently, the Company has been put to great expense in replacing this plant always at a time when work was most difficult. With ice and sleet everywhere, with frequent snowstorms and gales, the men have worked against every odd in order that our

service may be as nearly continuous as brains, brawn and money can make it. However, here are three photogra_I hs of a remarkable case of trouble which occurred on what is known as the "Seattle-Billington toll lead," south of Silvana in Washington State. The reproductions show separate breaks in the toll lead at intervals for a distance of over eight miles. They were taken by Mr. J. P. Dunphy, District Superintendent of Plant, and forwarded to Mr. H. B. Porter, Supervisor of Equipment, Philadelphia, simply as a matter of interest. Mr. Dunphy was one of a group of Western Bell Telephone men who visited the East about a year ago.

Another one of our employees, in commenting on the destruction here shown, said that one break such as this would be a sufficient memory token for troublemen for a hundred years.

Attention is especially called to the size of the trees shown in these groups. The diameter is greater than that of the larger wheels of the wagon and about equal to the height of a tall man's shoulders. The trees, which grow over a hundred feet high, blocked the highway for over thirty-six hours. The magnitude of the sawing job is easily appreciated.

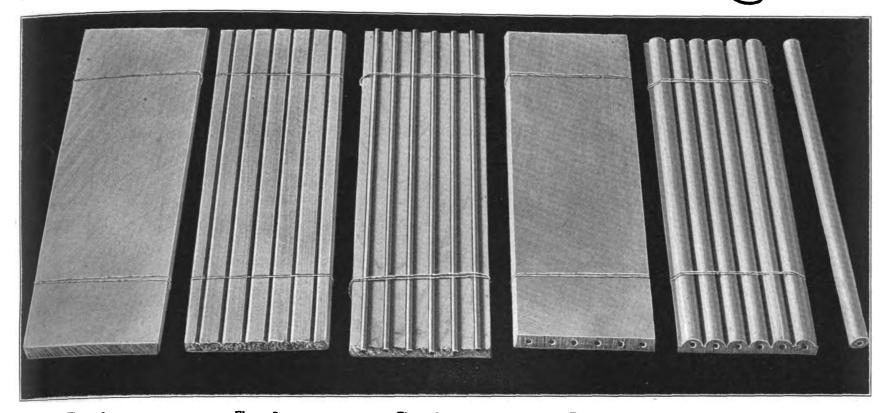


Figure 2 Figure 3 Figure 4 Figure 5

Processes in the Manufacture of Ordinary Lead Pencils

THERE is one article in common use that receives everyone's blame when poor and few people's praise when its quality is good. That statement applies to numerous devices, but no less fittingly than to the omnipresent everyday lead pencil. What would our operators, clerks and all workers do without this?

The method of manufacture of these necessities has changed only in details from the time the first ones were put on the market until the present day. Sometime in the sixteenth century there was discovered in England what became known as the Borrowdale mine of graphite. (As is well known, graphite is one of the principal forms of carbon.) This graphite happened to be soft and free from foreign substances. It was therefore sawed into thin strips and inserted into grooved pieces of wood, forming rough pencils.

However, the large manufacturers of the present day find many difficulties in supplying the quantity and quality demanded for the numerous uses to which pencils are now put. The scarcity of raw material in the pure state requires the powdering of graphite in order to free it from grit and other foreign substances. It is then mixed with clay, and the quantity of that substance determines the hardness of the lead to be produced. This mass, after having been thoroughly mixed, is then squeezed through dies of various sizes corresponding with the sizes of the lead required. Soft leads can usually be furnished in large sizes, and hard ones only in smaller gauges. The formation of lead into usable form requires heavy pressure. After leads are made of the gauge desired, they are cut into pieces slightly longer than pencil length and are then baked in order to give them strength for hand-

Referring now to the illustration on this page, the piece of wood at the left (Figure 1) is selected from even-grained stock, much of which is grown

for that purpose. The wood for imported pencils is grown largely in Bavaria, while that for domestic manufacture comes from several states. Florida has been prominent in our production. This thin slab of wood is grooved by machinery regulated to cut parallel strips simultaneously. Note that six grooves are shown in the next piece at the right (Figure 2). These grooves are treated with small quantities of glue, and six of the hardened leads, previously described (Figure 3), are deftly slid in place. Usually this work is done by girl operators who become very adept. In Figure 4 there are shown two grooved and glued strips of wood with the lead inserted and pressed into position. The strips are then put through other machines which trim the pencils (Figure 5). This work is done simultaneously on both sides, but only one side has been done on the section here reproduced. It will be seen that when both sides are done the pencils are cut into individual pieces and leave the "family" strip to shift for themselves—to become popular or unpopular, depending not only upon the manufacturer's work but upon the likes of the users, Some are trimmed into circular, hexagonal, triagonal and other shapes.

Varnishing, stamping, inspecting, boxing and shipping are further mechanical details unnecessary to describe. Red, blue and other colored leads are made of pigments mixed with various gums. Unlike pure graphite, their substances make it impossible to subject them to the hardening processes necessary for very small gauges; they are therefore furnished in softer leads and in larger gauges. With this exception there are no material differences in their manufacture. Leads for paper pencils are handled similarly except that the glue is used to hold the outside wrapping of paper in position. The machines, which wind the paper spirally, do the work so tightly that glue is not needed next to the lead.

Articles of Interest in "The Red Cross Bulletin"

The American Red Cross Bulletin for January contains an interesting article by Dr. M. J. Shields, entitled "The Campaign for The Bell Telephone Company," which describes at some length the work which Dr. Shields is doing in our territory from his own point of view.

Dr. Shields' article includes the following: "I want to say right here that in my long and varied experience in giving First Aid instruction I have never before met such hearty interest and intelligent appreciation. The sessions were prolonged beyond the time allotted and the men reluctant to leave. They crowded round and expressed their appreciation personally, asking if. the lectures were to be kept up. They wanted to get one of our First Aid diplomas and told of specific instances where they could have used the knowledge gained in the demonstration in real accidents. I have found in the personnel of the rank and file a high grade of intelligence, not only so far as their own work is concerned, but also in general matters, which, of course, demonstrates the value of the educational policy of this Company. After the meeting in Trenton, Mr. Zerman, the District Plant Supervisor, told me that the men stood around for an hour discussing the 'splendid dope,' as one fellow described it.'

In another article in the same issue, describing the general work of the First Aid Department of The Red Cross, several of the pictures taken in connection with this Company's "Safety First" campaign are used.

Gold-Plated Desk Stand

In foreign countries it is not uncommon for the nobility and others to use silver telephone desk stands. In this country enamel or nickel ones are used generally. However, at the special request and expense of a Washington, D. C., subscriber, a desk stand was gold-plated and installed in a West Philadelphia residence.



Allentown District

The following incident shows what conditions the Plant department has to contend with at times to remedy trouble. A subscriber renting a second floor apartment owned by the man who conducted a business on the first floor (both having Bell service) called up the Business Office and stated that his telephone was in trouble. When the Plant man inquired it was found that both protectors were installed in the cellar, and the owner of the building, after discovering why it was necessary to go into the cellar, refused to allow our man to enter, stating that we could not do so until the tenant paid his rent. After a lengthy talk between our Plant Chief and the two parties concerned the matter was amicably settled and the telephone service restored.

An unusually quick installation was made at Bethlehem, Pa., February 14. At 8.00 A.M. the Local Manager was called and asked to have telephone service installed in a residence on Salisbury Road which had been quarantined on account of diphtheria. The Plant Chief was immediately notified by telephone, and at 8.50 loop had been run, instrument and protector mounted on a board and placed at window. When the employee left the premises the telephone was taken in, and a few minutes after the subscriber called the Business Office and asked the Local Manager to thank the men for their prompt work. The work of installation was supervised by Senior Central Office Man Miller.

Scranton District

A few days ago a man who called at a West Scranton house forced his way into the house when the door was opened and attempted to strangle the woman who had answered the door, evidently so that he could rob the house. She managed to evade the intruder until she could get to the telephone, but only succeeded in getting the receiver off the hook before she was pulled away from the instrument. When the operator who answered the signal got no response to her "Number, please?" and heard the noise of the scuffling in the room, she realized that something was wrong and immediately had the Wire Chief put on the "howler." The would-be burglar evidently imagined that some kind of an alarm had been sounded and fled in haste.

An official of the First National Bank of Scranton, Pa., signed for private branch exchange service with 14 stations and 2 trunk lines, to supersede one direct line with a main and two extension stations.

The Spencer Heater Company has superseded the No. 2 P.B.X. service of 7 stations with a No. 1 P.B.X. flat rate with 15 stations.

The Scranton Bolt & Nut Company signed for a No. 2 P. B. X. flat rate service with three stations, superseding one direct line.

One of our salesmen while sitting at dinner recently in Forest City overheard the following conversation between some opposition telephone subscribers:

"I understand the Bell Telephone Company is going to place an exchange in town if they can

difficulty, there being the usual number of Smiths in Berwick, the two found the right party. That the conversation resulted profitably to the salesman was evidenced by his face as he came out of the booth.

The following private branch exchange applications have been obtained in the Wilkes-Barre District during the past two weeks:

The Miners Bank of Wilkes-Barre: No. 1 P.B.X. with 2 trunks and 8 stations.

The Mercy Hospital: No. 1 P.B.X. with ? trunks and ? stations.

The Lewis, Bennett Hardware Co.: No. ? P.B.X. with 2 trunks and 7 stations.

The Plymouth Coal Co.: No. 2 P.B.X. with 2 trunks and 6 stations.

McDonald & Murray: No. 2 P.B.X. with ? trunks and 6 stations.

Also the following additional equipment for private branch exchanges has been sold:

The Pennsylvania Railroad Co.: Two additional trunks.

The Delaware, Lackawanna & Western Railroad Co.: Two additional trunks.

The Vulcan Iron Works: One additional

trunk.
The Miner Hillard Milling Co.: One additional

trunk and 3 stations.

The Sheldon Axle Works: Ten additional

The Sheldon Axle Works: Ten additional stations.

Williamsport District

Extensive improvements have been made in Westfield, Pa. All open iron wire has been taken down and aerial cable substituted, the switchboard has been rewired and the central office remodeled. This same work has been done in Mansfield, Pa., making these two central offices complete in every way.

Rural Development at Pleasant Mount, Pa.

About four months ago a tentative canvass was started in the town of Pleasant Mount, which is located in the northern part of Wayne County. On Monday, February 3, as a result of this canvass, the Pleasant Mount central office was established to serve the town of Pleasant Mount and the rural districts surrounding it.

In canvassing the rural districts a rural company was organized, known as the Progressive Telephone Company of Northern Wayne, which has taken out a charter and is capitalized at \$5000. This company serves the rural districts for a distance of fourteen miles north of Pleasant Mount, including the towns of Preston Park, Lake Como, Lakewood, Orson and Pountelle. That company's line will extend within ten miles of the New York State border. It is the intenton to rent attachments to other rural companies, which we expect to organize in this territory, these also to be served from the Pleasant Mount central office. We have now secured fifteen subscribers to the Progressive Company.

A second company, to be known as the Belmont Road Rural Company, has also been organized to serve ten subscribers. Like the Progressive Company, it is connected with the Pleasant Mount central office.

The photographs of the Local Manager, Wire Chief and Chief Operator whose industry and zeal have been so invaluable in securing this development are reproduced on this page.



Carbondale, Pa., Bell Telephone Employees—Scranton District

Reading District

The following letter received at the Shamokin Business Office shows an amusing slip of the pen:

The Bell Telephone Co. of Penna.,

Shamokin, Pa.

On February 3 three emergency calls were sent through the Mt. Carmel central office for the fire department. Through the efficiency of the operating force and the promptness of the fire department the property loss did not exceed \$75.

secure enough business to warrant it."

"Yes, so I hear. Well, they are giving 'crackerjack' service."

The salesman made a mental note of these prospects for further attention. SMITHING.

Wilkes-Barre District

A traveling salesman had for his specialty an improved make of "Rough on Rats." Arriving in Bloomsburg, he was told by the hotel clerk that a call had come in from somebody named Smith, at Berwick, who desired some of this rat poison. The clerk, however, had not recorded the inquirer's full name nor telephone number. The salesman, armed with these facts, appealed to our public telephone attendant. After some little



Address on the Telephone Wire Plant, Written by Mr. S. P. Grace (See further description at the extreme right)

Suggestions in January

Below is a list of the employees of the Plant, Traffic and Commercial departments in this division who sent in "suggestion slips" during the month of January, 1913:

READING, PA.

Commercial Department.—Ethel T. Bicking, Esther H. Werner, Carrie M. Shirk, J. M.

Hykes, Anna E. Riegner, J. L. Printz.

Traffic Department.—Clara Grim, Ida M.
Pflugfelder, Carrie Wagner, Catherine Stuber. Miss Faust.

Plant Department.-R. I. Reppert, E. P. Laird, Sam Beggs, G. C. Kessler, H. E. Miller, H. Frederick, W. A. Fegley, H. T. Albright, W. L. Nagle, W. B. Riegel, J. W. Glaser.

Plant Department A. T. & T. Co.-T. H. Groninger.

HAMBURG, PA.

Traffic Department.—A. L. Shomo.

SHAMOKIN, PA.

Traffic Department.-M. Yordy, M. Zimcoller, Ada Koch, Gertrude Evans, Estella Rohrbach. Plant Department.-H. T. Morgan.

MT. CARMEL, PA.

Traffic Department.—Mary Davis, Florence Stecker.

POTTSVILLE, PA.

Plant Department.—G. Lightcap, J. M. Donder, P. L. G. Haaskarl, M. Sieger, L. Sterner, L. Mayberry, L. McMillan, A. Lee, J. Sisk, R. Durkin, H. E. Karbel.

Traffic Department.—P. W. Yocom, Mary Albright, M. Downey, Marguerite Yocom, H. Wagner, H. Wilson, Mary Siebenkaes, adelaide Brown, Miriam Houser, Bessie Womer, Ruth Yocom, Anna Folk, Mae Armstrong, Meta Hart-

Commercial Department.—J. McCool, N. R. Coonan, K. G. Corcoran.

LEBANON, PA.

Traffic Department.-Maud Turner, Lillian Heilman, Laura Eiler, Helen Radams, Minnie Hale, Mabel Beck, Lydia Radams, Clare Matthews.

Plant Department.—R. W. Bressler, W. H. Burkhard, Geo. Levengood, Eugene Heisey.

Commercial Department.—Geo. U. Schock, M.

Lola Kerr.

From these prospects 76 applications were obtained with a total new revenue of \$1689.40.

Philadelphia Division Aid

During the month of January the district offices in the Philadelphia Division received 344 suggestion slips, Form 2141, and through the information furnished thereon secured applications for new stations or additional equipment from 158 of these memoranda. 117 of these were from employees of the Plant department and 41 from employees of the Traffic department, as follows:

Plant Department.—J. C. Alexander, W. B. Eldridge, A. C. Gilberson, J. E. Goodwin, J. A. Harron, F. Hausler, H. D. Henning, J. T. Hindle, L. L. James, J. A. Jervis, C. E. Jobe, W. E. Kehl, A. Kunkler, T. J. Loudenslager, Edw. H. Massey, R. Moore, C. H. Mullen, J. E. Oner, H. E. Ormston, C. H. Painter, W. A. Parlette, H. J. Paulus, G. H. Quinn, W. M. Raynor, M. H. E. Ormston, C. H. Fainter, W. M. Fairtes, H. J. Paulus, G. H. Quinn, W. M. Raynor, M. Robinson, D. F. Smith, W. Smith, H. Snyder, W. A. Snyder, R. E. Sweet, J. W. Tobin, H. A. Wallace, W. S. Wheeler, Wm. Wilson, W. Armond, J. Billhimer, D. L. Bolger, J. Boyle, H. N. Braum, C. W. Brooks, B. L. Cleary, M. Collins, H. Constantine, R. Craigmile, A. W. Diller, J. L. Drescher, C. Dwight, D. E. Flannery, A. B. Foard, H. A. Fulmer, J. Gilbert, Goslin, J. Henry, W. K. Hange, B. H. Tamin, C. Tamin, C. C. W. K. Hoyer, R. H. Irwin, G. Jessen, C. S. Lorenz, J. T. Mathias, J. Meehan, J. E. Moffett, C. Narcucci, C. B. O'Connor, C. Oswald, F. H. Pyle, F. J. Reichert, E. W. Rowlett, G. R. Scott, W. W. Snyder, W. H. Stewart, J. Sweeney, T. J. Barry, Jr., L. McK. Bryan, Wm. B. Buchanan, J. D. Donahue, D. Haley, C. Idell, I. Jones, Louis C. Melz, C. O. Mare, G. H. Quinn, J. H. Saunders.

Traffic Department.-W. H. Bell, A. M. Donohue, H. A. Fullmers, M. H. Fenis, A. F. Frewnd, E. M. Jacobs, M. Kibler, A. Lawler, J. Lorenz, O. W. Miller, M. E. Minnick, A. Mulherin, P. N. Nicoladse, H. W. Peacock, M. T. Richardson, N. Saller, H. V. Strain, J. M. Tallman, H. R. Waters, S. R. Wood, Mary A. Lenahan, Mary K. Rutherford, Anna M. Ward, Anna B. Wyn-

From these suggestions 153 new stations and \$3694 in revenue were obtained. This is an increase of \$700 over last month.

Plant Assistance

From 307 suggestion slips forwarded in January to the Commercial department by employees of the Plant Eastern Division, there was over \$2300 worth of annual revenue obtained and 85 stations.

The highest amounts of added annual revenue resulted from the suggestions furnished by the following men: R. Rosenberger, Ambler, \$246; B. C. Sieber, Atlantic, \$192; T. H. Smith, Princeton, \$137; W. Hildebrandt, Langhorne, \$113; J. V. Donohue, Jenkintown, \$81; F. Helmick, Jenkintown, \$54.

Men in every district, where suggestion blanks were on hand, forwarded slips and revenue resulted in every district. These suggestion slips came in: Atlantic 12, Bridgeton 9, Camden and Camden suburban 47, Burlington and Trenton 44, Jenkintown 40, Norristown 58, Pottstown 23, West Chester 3 Doylestown 31, West Grove 12, Wilmington 26 and Dover 2.

Stationery Note

Some of the mail which is received at the General Offices in Philadelphia makes it seem worth while to call our employees' attention to the fact that form numbers on envelopes have been placed in the upper right-hand corner of the envelope so that they may be concealed by the stamps. A moment spent in carefully placing the stamps will pay dividends in the impression which the public receives.

The next meeting of The Philadelphia Telephone Society will be addressed by the Vice-President of the New England Tel. & Tel. Co., on Monday, March 3. Note change of date.





Bridgeton Sub-District

The following letter was received from one of our rural line subscribers who goes to Jamestown, N. Y., for about six months every winter, retaining his telephone so as not to be without service on his return.

Jamestown, N. Y., Jan. 29, 1913.

The D. & A. Tel. & Tel. Co., Bridgeton, N. J.

Gentlemen:—I have received a letter from my son, this morning, saying an agent had called on him to see about having a telephone put in on the farm I recently bought. If you will put the telephone in I will be very thankful to you and it will be greatly appreciated. You may go ahead with it at any time it is convenient to you, and it should be listed in my son's name.

Thanking you for the telephone service we have in our own house, I am,

Very respectfully yours,

J. A. Gandy.

An aged man, living by himself in a small cabin near one of our rural lines, told an employee that it would be necessary to move the cabin as so many people in his vicinity had telephone service and the girls talking all night made so much noise that it kept him awake.

Trouble on a subscriber's telephone was found to have been caused by the subscriber pulling the cord in order to lengthen it.

One of the employees of the Plant department, in digging a hole for a pole, unearthed a human skull. He wrapped it up in a newspaper and brought the gruesome curiosity home with him. While riding in the trolley the paper became loose, exposing the contents to a colored woman occupying the next seat. She gave one look and exclaimed, "Lor' of Massy, mister, what you got there?" and fled from the car in haste.

One of our Bridgeton subscribers, a prominent business man, sold his business in Bridgeton and moved to California. Soon after his arrival in California a rumor was started and rapidly spread over the town that the man had lost all his money and committed suicide. The matter was given considerable publicity in both daily papers.

A friend of his, in order to learn the truth of the matter, sent a telegram, using Western Union wires, to the town in California to which he had moved. Very shortly afterward he received the following telegram in reply:

Ocean Park, California. Benjamin Pollock:-Am still alive and doing fair. Bought large livery stable to-day with 25 boarders and expect to open hotel February 6. Remember us to the boys and come see us.

N. H. Atkinson.

This telegram was also published in both daily papers under the heading "'I'M STILL ALIVE," SAYS ATKINSON." It is another instance of using quicker service when in doubt rather than depending upon the mails. LORE.

Camden District

The shop of a Camden butcher was entered by two men late in the evening, a few days ago. While one threatened the butcher with a revolver

the other emptied the cash drawer. As soon as the robbers left the shop the butcher telephoned the police, and by the aid of the red-light signal system used in Camden every policeman had been called to the telephone and notified of the robbery within fifteen minutes.

The following commendatory letter was received by the Camden District Manager:

The Del. & Atl. Tel. & Tel. Co.,

Camden, N. J.

Gentlemen:—The new telephone you installed works finely and it is a pleasure to use it, especially considering the promptness and courtesy of the ladies of the Riverton exchange.

Very truly yours,

Rev. N. F. Stahl. WRIGGINS.

Norristown District

A Bridgeport, Pa., business man writes as follows:

Bell Telephone Co.,

Norristown, Pa.

Gentlemen :—

I wish to take this opportunity to commend you for the good telephone service which I have had thus far since a resident of Norristown.

Sincerely yours, John A. Buggy.

BEERER.

West Chester District

A quick installation was recently completed at Oxford, Pa., when our salesman was called at 12.45 A.M. and informed that a severe case of illness demanded that a telephone be installed immediately. The salesman arrived at the applicant's home at 1.15 P.M. and had the application signed. He immediately called the West Grove Wire Chief and West Chester Line Order Clerk to make necessary arrangements for an emergency job. The telephone was working at 3 P.M.

Salesman Townsend of the West Chester District recently obtained an application for telephone service from a business man in his territory whom he had canvassed repeatedly for five years. The subscriber hailed our salesman on the street the other day and told him that the subscriber had saved money by having telephone service installed. The subscriber can neither read nor write, and many things that were neglected in the past are now promptly handled by means of the telephone.

An automobile party trying to get from Lancaster to Philadelphia recently depended on the telephone to guide them to the best roads. They called the information clerk at Coatesville to find out if it was snowing there and what kind of condition the roads were in. Coatesville is just about halfway between Lancaster and Philadelphia.

A prominent lawyer of West Chester, Pa., recently signed an application for extension telephone service. After signing, he called the Plant Chief's office and made a request that the extension be installed the following morning at 9 A.M. Promptly at that time our man was on the job, and when the subscriber came home at noon and found the extension installed and working, he immediately called the Plant Chief's office and expressed his appreciation for the prompt and very satisfactory installation of work.

The following are two of a series of puzzlin requests received by the Information Clerk; West Chester, Pa.:

One subscriber called "Information" and state that he wanted to speak to a Mr. Garrett. H didn't know Mr. Garrett's first name or address

but knew that he had a daughter Hannah.

The other called "Information" for a M.
Griffith. He didn't know Mr. Griffith's Christia name or address, but said that he only knew that there was a pretty blonde young lady in the family of the Mr. Griffith whom he was calling

Both of these persons were located and the

parties talked.

Early Rising!

A Coatesville (Pa.) subscriber recently wanted to arise early to catch a train to Philadelphia, s arranged with his milkman to call him on the telephone at 4 A.M. The subscriber happened to be served by a four-party line and, as he was a very sound sleeper and his telephone was located on the lower floor, the operator rang in vain for him The other party on the same side of the line had an extension telephone in his sleeping room. He was so annoyed by the continuous ringing, that sounded to him like a fire-bell rather than the telephone bells, that he took the receiver off the hook. This caused all bells served by the line to be rung. The operator, bent on raising her number, kept on ringing until she noticed that a receiver was off. By that time everyone on the line had been awakened but the one wanted. The next day, by noon, three of the four parties had applied for a better class of service and had signed applications. Our salesman lost no opportunity in making a complete job. All four parties were changed from four-party to better service. GREEN FIELD.

Wilmington District

The two letters reproduced below are from the Citizens' Association of Llanerch:

October 10, 1912.

The Bell Telephone Co. of Penna., Wilmington, Del.

Gentlemen: -At the last regular meeting of our association a resolution was passed requesting that a letter be sent to you regarding the service your Company renders to some of our citizens (your subscribers), who claim that on quite 2 number of occasions it had taken from ten to thirty minutes to get in communication with their homes from Philadelphia. This, you will see, is very poor service and we should have better.

Your attention in this matter will be appreciated.

Yours very truly,

F. L. Miller, Secretary.

January 22, 1913. The Bell Telephone Co. of Penna.,

Wilmington, Del. Gentlemen:—At a meeting of our association held January 20, 1913, a resolution was passed directing the Secretary to write you a letter ci thanks for the improved telephone service which has obtained since complaint was made to you some time since.

I am therefore pleased to convey to you the thanks of our members for the better service resulting from the interest shown by you in our

> Yours faithfully, Wm. E. Arnold, Secretary. CHAMBERS.



The Multiple Telephone Switchboard

(From Western Electric News)

E have described the operation of a small telephone switchboard with one operator, and how she connects the jacks of the different lines by means of flexible cords ending in plugs. This month we shall tell how subscribers' lines are connected together for conversation in a large city office, where the thousands of subscribers are divided among many operators.

Large switchboards are nowadays practically all of the common battery type, and the following description applies to that kind of switchboard. Its distinctive operating feature is that signals from the subscribers are given by miniature electric lamps, which automatically light and go out

her pairs of cords in the jack, presses back the key-lever and asks "Number, please?" You say "4321.'

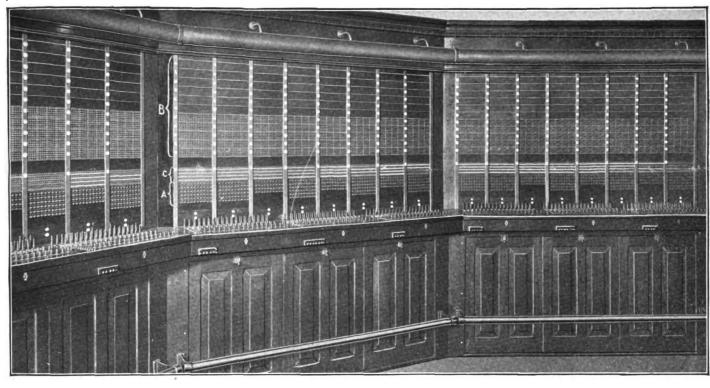
Now answering jack No. 4321 may be at the other end of the board, out of your operator's reach; so to enable her to connect to line No. 4321 without asking another operator's assistance, there are provided the multiple jacks which give the switchboard its name of multiple switchboard.

The upper part of the face of the switchboard for its whole length is a solid mass of jacks, numbered in groups of say 10,000 (if there are 10,000 lines connected to the switchboard). Each group fills the space in front of three operators, and if we look in a certain place in every group we shall

We will now describe the action of the supervisory lamps. When the operator plugs into multiple jack No. 4321, the front lamp of the pair of cords lights. When it goes out the operator knows that subscriber No. 4321 has answered and she need not ring again. The back lamp has not yet lighted.

When the conversation is finished and you both hang up your receivers, both the supervisory lamps light, telling the operator to pull down the cords, as the call is finished.

If either you or subscriber No. 4321 desires to get the attention of the operator while you are still connected, a slow up-and-down movement of the receiver hook will light and extinguish one



Several Sections of an 8000 Line Multiple Telephone Switchboard

when the receiver hooks on the subscribers' instruments are moved up and down.

The operators sit in a row along a continuous switchboard, and in front of each operator are jacks for about two hundred lines. These are called answering jacks, and under each one is a small lamp called a line lamp, which lights when that subscriber lifts his receiver from the hook to ask for a number.

In the keyboard in front of each operator are pairs of cords, each with its ringing and listening key-lever, similar to those in the small board. There are also two small lamps called supervisory lamps placed between each pair of cords and their key. The back lamp is associated with the back or answering cord and plug, and the front lamp with the front or calling cord and plug.

Now suppose your telephone number is No. 999, and that your take up your receiver to ask for No. 4321. At once the line lamp under answering jack No. 999 lights, and the nearest operator places the answering plug of any one of

find one jack in each group numbered 4321. All the multiple jacks of the same number are connected together, and to the answering jack and subscriber's line of the same number, by means of cable in the back of the switchboard.

Your operator is therefore able to find a multiple jack numbered 4321 either directly in front of her or within reach on one side or the other. She places the calling plug of the same pair of cords in that jack and pulls the key-lever towards her, to ring subscriber No. 4321's bell.

Before plugging into the multiple jack, however, she must first make sure that line No. 4321 is not already in use, as some other operator may have a plug in one of its other multiple jacks or its answering jack. To tell this, she makes a "busy" test by tapping the point of the calling plug several times against the edge of the multiple jack. If the line is disengaged she will hear nothing, but if there is a plug in any one of the other jacks of that line she will hear a sharp click each time she taps the jack.

lamp or the other as long as you keep it up, and that notifies the operator to press back the key-lever and ask what you want.

The illustration shows part of a switchboard where it is rounding a corner of the operating room. In the space marked "A" are the answering jacks and line lamps; the multiple jacks are in the upper part, marked "B"; and in the space marked "C" are jacks used for connecting to other central offices.

It will be seen that in each straight section there are keyboards for three operators and a complete equipment of multiple jacks for 4000 lines, with space above for more multiple jacks up to the total capacity of 8800 lines, which is the limit of this particular switchboard.

The multiple jacks are in groups of 100, with a number plate at the left of each group, and the jacks in each group are individually numbered from 0 to 99.

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ittsburgh Division ~ Z.Z.HUGUS. Division Correspondent

Butler District

Recently U. S. Armstrong, of New Kensington, a traveling salesman for one of the largest conduit companies in the country, had a very important business engagement in New York City. He had arranged to meet his brother-inlaw in Pittsburgh, and to go from there to New York in his company. Upon arriving at the New Kensington depot he found that the train with which he was to make connections at Pittsburgh was running late. To go farther than East Liberty would cause him to miss the New York train. He must get his brother-in-law who was coming into Pittsburgh from the West to lift the tickets and Pullman reservations at the Pennsylvania Station.

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Old Western Union Check Error Card (See column 3)

Mr. Armstrong rushed into the booth and asked the operator for his residence, and the operator reported the line in use. The operator advised him that his wife was talking to her brother, who had called from Pittsburgh. "Put him right on this line," shouted Mr. Armstrong. The operator switched the connection and Mr. Armstrong gave the ticket instructions to his brother-in-law, rushed out and jumped upon his train for East Liberty as it was pulling out of the New Kensington depot. He made the connections all right, got into New York in time to keep his appointment, and secured a large and valuable order. GOOD.

Johnstown District

The following letter has been received by the Greensburg Local Manager from a traveling man:

Pittsburgh, February 8, 1913.

Mr. F. W. Morgan,

Bell Telephone Company,

Greensburg, Pa.

Dear Sir:-On last Wednesday I had occasion to talk to the First National Bank, Scottdale, Pa. The call was important and urgent. My party could not be reached on the first call, or the second, etc., until the fourth. I was persistent, but your operator was patient and very courteous and obtained the party after an effort. Please convey to her my thanks. I never received better attention and service in any other part of the United States, and I reach nearly all of it.

I made inquiry and I think her number is five. Appreciating the service, I am. Yours very truly,

W. H. Keen.

In reply to a bill for a disconnected telephone account, the following letter was received in the Greensburg office accompanied by a check:

Dear Sir:-We received a letter of you that we had to pay 3 and 48 cents and we send you check of 348, to get this money to the national bank of Greensburg.

Your truly friend,

SMITH.

New Castle District

Between Callery Junction and Hoytdale, Pa., the new aerial cable line has been under construction for several months. At Rock Point, where the line crosses Beaver River, it is eighty feet from the low-water line. Nearly eight weeks were required in building across the river because of the precautions taken. Freight and passenger trains on the Pittsburgh and Lake Erie Railroad, across the river from Rock Point, caused frequent interruptions because our men were obliged to work on the tracks." H. E. Pfaff supervised the job. During the construction work our men had their headquarters in Ellwood City, HARPER.

Pittsburgh District

A Hardware Show has just been held in Pittsburgh, in the Exposition Buildings, by the Hardware Dealers of Pennsylvania.

Telephone service was furnished by a private branch exchange with 26 subscribers' stations, and service to the public by two public telephones. Two operators alternately handled the board and took care of the telephone traffic.

A Pittsburgh mercantile house, a subscriber to P.B.X. service, has just issued and distributed to all its employees cards which on one side give a directory of the organization and its personnel and on the other side the following "Instructions to Employees When Telephoning":

"Cultivate telephone acquaintance with our customers by exchanging names when talking.

"The tone of your voice will either make a friend or an enemy for us.

"If you were talking to a customer face to face and you let a note of impatience creep into your voice, he might overlook it because of the friendlier aspect of your face.

"But over the telephone let the slightest suspicion of indifference or impatience creep into your tone and we are sure to lose.

"When you tell a customer you cannot do what he asks, take plenty of time to tell him why you cannot. "When you finish taking an order say 'Thank you,'

and say it as if you meant it."

Uniontown District

On the evening of Saturday, February 8, tie towns of Connellsville and Scottdale were without gas, due to a break in the gas main on a Wa Virginia farm.

Superintendent J. E. Angle of the Favette County Gas Company at Connellsville made un usual efforts to notify the public that the gas kg been shut off, so that they might shut the outle and avoid danger when the supply was again turned on. In the accomplishment of this the telephone lines played the important part and were kept busy continually about three hours. number of long-distance calls were also necessitated. The results were gratifying, for there was not a single accident.

On the following day the Connellsville operators received a card of appreciation from the Superintendent of the Gas Company.

At the time of the establishment of a joint telephone-telegraph office at Morgantown, W. Va., and the removal of the Western Union to the quarters of The Bell Telephone Company, an old check error post-card was found among some old papers of the Western Union. Mr. Kiger, former Manager of the Western Union at Morgantown, states that this form of card was used in 1872. With few exceptions, it differs very little from the present Western Union check error card. MISS HEPPLEWHITE.

Good Publicity

The Pittsburgh Gazette-Times devoted twothirds of a page in its issue of February 16 to an illustrated article on the work of Dr. Matthew J. Shields, who has been lecturing to our employees on First Aid Work.



Railroad Depot



Putnam Street

Other Marietta, O., Flood Views

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The Telephone and Mail Order Departments of Wanamaker's Philadelphia Store

The telephone and mail order departments of John Wanamaker's Philadelphia store comprise a good-sized business in themselves, employing the services of nearly one hundred people. The telephone order department takes care of the "shop-from-your-home" customers of Philadelphia and its suburban towns, while the mail order department handles those of the rest of the world.

Appreciating the convenience of telephone shopping, the progressive store has installed an eight-position telephone "order table" which was described in detail in THE TELEPHONE NEWS of August 15, 1910. This order table is connected with the branch exchange, and all telephone customers who wish to place orders and do not ask for a particular department or clerk are immediately connected with it. Here four or five girls experienced in this work take down the orders. These, after having been stamped with the exact time of their receipt, are dispatched by means of pneumatic tubes to a branch of this department located on the main floor. From here each order is transmitted by messenger to the proper counter, where they are handled in every case by the head of the sales force of that counter. Next they go through the mail order inspection department to the wrapping department, and by means of a gravity spiral chute on to the delivery department. In the delivery department the packages are sorted according to their destinations and transferred to the proper delivery stand by means of a belt line. There they are loaded on wagons or motor trucks for delivery to the purchaser.

All mail orders and specially important telephone orders are handled by what are known as "personal shoppers." This means that after the order has been copied and the customer's name and address filed in a permanent index, the order is turned over to the shopper, who buys the goods directly from the clerk of the proper department exactly as though she were buying them for her own personal use.

An interesting feature of this service is that goods may be ordered at the Philadelphia store to be shipped from the New York store. Suppose that Milady who lives at Bryn Mawr, Pa., wants some particular shade of silk she has seen or has heard is in the New York store. It is only necessary for her to call the order table in the Philadelphia store and make her wish known. The order will be immediately transmitted to the New York store by wireless, with a request to ship that day, and to-morrow morning the expressman—or perhaps the postman—delivers to Milady the goods she wants.

The establishment of a parcel post has of course greatly increased the possibilities of the mail order business. The Wanamaker store has improved upon the parcel post by offering free delivery of packages provided the cost of the purchase is over a certain amount,—the amount varying with the distance the article is to be shipped.

The store issues no general mail order catalogue, but four times a year—at the beginning of each season—it sends out to all its mail order customers a magazine called Store and Home, showing, in addition to the things of general and seasonable interest, the latest Parisian modes with sufficient descriptive notes written by the Paris editorial staff of this international enterprise.



A Philadelphia Drug Store Newly Equipped with Four Window Booths 6th and Bainbridge Sts. Yiddish Sign Reads "Public Telephone

Italian Sign States
"Public Telephone
for Whatever Distance'

for All Calls"

At Another Drug Store
Similar Signs Brought
Heavy Revenue
Increases

Collection Efficiency Per Cent. of Amount Outstanding to Total Amount Billed for Current Month

JANUARY, 1913.

| THILADELPHIA DIVISION. | |
|------------------------|-----------|
| Collection Office | Per Cent. |
| Philadelphia | 27.6 |
| Germantown | |
| Chester | . 37.1 |
| | |

ATLANTIC COAST DIVISION

| ATLANTIC COAST DIVISION. |
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| Norristown |
| Doylestown |
| West Chester24.8. |
| Dover |
| Trenton27.4 |
| Wilmington35.7 |
| Bridgeton |
| Camden |
| Atlantic |
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| Atlantic |
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| HARRISBURG DIVISION. Ridgway 2.7 Lancaster 4.2 Altoona 4.4 Carlisle 6.0 Lewistown 6.5 |
| Sunbury 9.5 Bethlehem 10.1 Huntingdon 11.0 Bellefonte 11.9 Bloomsburg 13.4 |
| Waynesboro .13.9 Wellsboro .14.7 Towanda .14.9 York .15.1 Berwick .15.4 |
| Williamsport .15.5 Pittston .15.9 Honesdale .16.1 Scranton .16.2 Allentown .16.3 |
| Reading 16.9 Easton 17.5 Chambersburg 17.8 Carbondale 17.9 Wilkes-Barre 19.0 |
| Coudersport 21.3 Nanticoke 22.4 Harrisburg 23.0 Hazleton 23.2 Lock Haven 23.5 |
| Shamokin23.6 |

| Collection Office | | | | | | | | | | | | | | Per Cent |
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| Emporium | | | | | | | | | | | | | | |

PITTSBURGH DIVISION.

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| Scottdale Uhrichsv McKeesp Warren | , Pa |
| Salem, C Youngsvi Sistersvil Steubenv | O. .29.4 ille, Pa. .29.4 le, W. Va. .30.7 ille, O. .30.8 h, Pa. .31.7 |
| Sharon, I Marietta, Washingt Butler, I | Pa .32.5 O .32.7 ton, Pa .33.0 Pa .34.1 Pa .35.1 |
| Connellsy Fairmont Oil City. | r, Pa |
| Ebensbur New Cas | g, Pa |

Greenville, Pa......66.8

Meadville, Pa.....92.8

Parkersburg, W. Va......95.4

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North East, Pa.....

Our Societies

The Philadelphia Telephone Society

Scottish Rite Hall, S. W. corner Broad and Race

Streets, MONDAY, March 3, EIGHT o'clock. Speaker: Mr. E. K. Hall, Vice-President of New England Telephone and Telegraph Com-

Subject: "Public Opinion."

The Telephone Society of Harrisburg

At the regular bimonthly meeting held February 17, the speaker was Mr. H. F. Thurber, Vice-President. In spite of generally unfavorable weather including a snowstorm, the audience room in the Board of Trade Auditorium was crowded.

A report of this meeting will be given in our next issue.

The Spare Pair Society

6A Parkway Building, Broad and Cherry Streets, Philadelphia.

Thursday evening, March 20. Speaker and subject: To be announced.

The Diamond State Telephone Society

601 Shipley Street, Wilmington, Del. Thursday evening, March 20. Speaker and subject: To be announced.

The 613 Club

On February 4, 1913, a Plant School to be known as "The 613 Club" was organized in the Allentown (Pa.) District, with thirteen members. The following officers were elected: E. W. Weaver, President; J. F. Gaffney, Vice-President; J. Mead, Secretary; G. Reifsnyder, Treasurer. At the second meeting, held February 11, the subject "History of the Telephone" was discussed. Meetings will be held on the second and fourth Tuesday of each month. Various subjects of interest to Plant employees will be discussed at these meetings.

The Cross Talk Club

Kugler's, 1412 Chestnut St., Philadelphia. March 11, 6.15 P.M.

Speaker: F. P. Meigs, Toll Rate Clerk.

Subject: "Toll Rates.

At the regular monthly meeting held February 11, G. E. Gable, Copy Manager, spoke on "The Johnstown, Pa., Campaign.'

Organization Changes The Bell Telephone Company of Pennsylvania

A. Beisel, Cable Helper to Cable Splicer, Allentown, Pa.

F. W. Burkert, Cable Helper to Cable Splicer, Easton, Pa.

J. Golden, Installer to Central Office Man, Easton, Pa.

C. Plant, Climber to Loop Foreman, Easton, Pa.

D. Steele, Installer to P.B.X. Installer, Philadelphia, Pa.

W. Risko, Apprentice Installer to Apprentice

Wireman, Philadelphia, Pa. F. W. Wright, Clerk, Plant Superintendent's Office, Harrisburg, to Plant Accounting, Philadelphia.

Raymond Burke, Attendant to Messenger, Sev-

enteenth and Filbert Streets.

William H. Ewell, Messenger, Traffic to Plant Department, Seventeenth and Filbert Streets.

C. H. Guilbert, Jr., Clerk, Plant Department, N. J., to Engineering Department.

Roy Kimmel, Installer to Groundman, Erie, Pa. H. B. Lansberry, Installer to Groundman, Altoona, Pa.

The Delaware & Atlantic Telegraph & Telephone Company

A. W. Temple, Combination Man, Camden to Hammonton, N. J.



Mr. E. K. Hall, Vice-President N. E. T. & T. Co. Who will address The Philadelphia Telephone Society MONDAY Evening, March 3

W. J. Terneson, Groundman, Bristol, Pa., to Trenton, N. J.

The Central District & Printing Telegraph Company

S. E. Warrick, Agent, Greensburg District to Punxsutawney, Pa.

J. L. Coutt, Repairman, Cambridge, Ohio, to Uhrichsville, Ohio.

M. J. Bernarding, Installer to Central Office Man, Hill Senior Foreman's to Hill District.

D. B. Cellar, Clerk, Pittsburgh District Contract Manager's Office to Division Manager's

W. B. McComb, Adjuster to Salesman, Johnstown District, Johnstown, Pa., to Contract Manager's Office.

E. E. Moss, Lineman to Climber, Pittsburgh, Pa.

C. W. Danley, Groundman to Climber, Pittsburgh, Pa.

J. R. Earl, Repairman, Pittsburgh, Pa.

T. J. McDermott, Groundman to Climber, Pittsburgh, Pa.

Harry Mattox, Climber to Assistant Foreman, Pittsburgh, Pa.

Everett C. Findling, Groundman to Climber, Pittsburgh, Pa.

Patrick Devlin, Lineman to Climber, Pittsburgh, Pa.

Jos. L. Mahoney, Lineman to Climber, Pittsburgh, Pa.

J. A. Jackson, Night Repairman to Night Central Office Man, Pittsburgh, Pa.

J. M. Stewart, Installer to Night Inspector,

Jos. W. Walker, Installer to Central Office Man, Pittsburgh, Pa.

New Subscribers

In the beautiful Conestoga Valley in Lancaster County there dwell two sects of Amish, one known as the "church," the other as the "house Amish." The church Amish," by their discipline, were allowed use of modern conveniences and commodities. The members of the "house Amish" do not believe in church worship but hold all of their religious services in the homes. The bishop placed a ban on telephones, sewing machines, bicycles, automobiles, etc.

These people also are without any farm machinery or conveniences in their homes that might be classed as worldly. Their conveyances have no dashboards. No buttons are allowed to be used on their clothing. The fasteners must be

the old-fashioned hooks-and-eyes.

Very recently the ban was taken off the sewing machines and telephones and the matter was left optional with the members as to whether they wanted these modern time and labor savers in their homes on not. This was not, however, generally known. Imagine the surprise of a sewing machine dealer in Morgantown when a recently married couple walked into his store and asked the price of a sewing machine. The dealer could hardly believe what he heard when they said, "Here is your \$65; deliver the machine as soon as you can."

A Bell representative in Morgantown was invited to accompany the merchant to their home when the machine was delivered. After the workings of the machine were thoroughly explained to the housewife the question of telephone service was taken up. The young farmer said: "We will be glad to take a telephone ourselves, and I know of a number of our neighbors who will be subscribers also.'

This locality being in the territory operated by the Denver & Ephrata Telephone Company, their representatives were immediately notified. By their reports it is noticed that they are receiving substantial encouragement and before long that stretch of beautiful farms between Morgantown and Churchtown will be receiving up-to-date Bell

Express Labels

Anyone who intends to ship by the Adams or United States Express Company may obtain gummed labels reading COLLECT or PREPAID from those companies without charge. They will be furnished in quantities as desired for future use upon application to the local business office.

As a means of precaution against possible errors this notice is printed for the information of all our employees who have occasion to use express service.

Information Bureau Workers (See reproduction on page 1)

Front to rear:

Left: J. C. Garrett, W. J. Lyshon, Chas. Straub, H. Cunneff, R. F. Burke, and Chas.

Right: J. J. Tighe, A. McLaughlin, G. H. Isphording, Thos. Hendricks, W. H. Ewell, and C. Weihman.

Supervisors: P. H. Doyle, G. O. Potts.







William Tell LaRoche

THE announcement on March 7 of Mr. LaRoche's appointment as General Superintendent of Plant of our Companies, to succeed Mr. Nowell, came as no surprise whatever.

The gap left in the official organization through Mr. Nowell's resignation called for a big man, big in knowledge, experience and accomplishment; and no more appreciated and popular appointment could have been made than that of Mr. LaRoche.

So familiar a figure in Pennsylvania telephone history needs not to be introduced to the men of our Companies. For twenty-six years a telephone man, serving in the various capacities of operator, combination man, local manager, inspector, chief inspector, district inspector, chief of maintenance, and finally superintendent, Mr. LaRoche has seen service in many cities and in many territories. He is now taking his place at the head of a department of which the men know and regard him as he knows and regards them, appreciatively and loyally.

Born at Allentown, Pa., on August 28, 1866, a son of John P. and Annie M. LaRoche, who still reside there, he entered the employ of The Pennsylvania Telephone Company in the autumn of 1887, after completing his courses in the schools of that city. For some time an operator at the switchboard, he was soon transferred to Plant work, and held several positions of minor title under the territorial organization of those days at Lititz, Mauch Chunk, Lebanon and Allentown.

In 1891 Mr. LaRoche first put business foot in Philadelphia, in the employ of The Bell Telephone Company of Philadelphia, as an inspector. By rapid steps he advanced in the organization to the position of Plant Superintendent, gathering meanwhile a fund of knowledge and experience which he

(Continued on page 3, column 2)

John Chase Nowell

EARLY eighteen years with the Bell System (one year less an adopted Philadelphian in that service) and since 1904 at the helm of the Plant department of our continually enlarging group of Companies,—such is the record of service which Mr. Nowell bears with him to the Western coast, to assume there the position of General Manager of a great Bell unit, the Pacific Telephone and Telegraph Company.

THE TELEPHONE News of May 1, 1911, referred in detail to the succession of offices held by Mr. Nowell in the telephone world; how, as a youngster just out of college and with no qualifications other than a degree in Electrical Engineering and a large-sized capacity for work, he swung himself onto the bottom rung of the telephone ladder and commenced an uninterrupted climb that has now brought him executive honors of a notable sort.

It is probable that the story of Mr. Nowell's telephone career is wholly familiar to every Plant employee in our Companies, no less to many men of the sister departments who have known our former General Plant Superintendent during the period of his broad and intimate association with the personnel of our Bell of Pennsylvania organization. And particularly to those who have had opportunity fully to appreciate his conspicuously productive effort towards the creation and perfection of a mighty telephone plant, is his acquisition of Western honors a subject for real congratulation, congratulation to Mr. Nowell and to the Pacific Company alike.

Should any one of the thirty-seven hundred men of our Plant organization lack inspiration for the kind of hard, studious, conscientious work that so largely contributes to real success and advancement, or should any other seek example of that considerate and helpful attitude towards others which

(Continued on page 3, column 1)



THE TELEPHONE NEWS

The Bell Telephone Company of Pennsylvania The Central District & Printing Telegraph Company
The Delaware & Atlantic Telegraph & Telephone Co. The Diamond State Telephone Company

F. H. BETHELL, President

FORD HUNTINGTON, Vice-President

L. H. KINNARD, Second Vice-President and General Manager

W. S. PEIRSOL, Sec'y and Treas.

S. WILEY, General Auditor

J. H. CROSMAN, Jr., Gen'l Com'l Sup't J. C. NOWELL, Gen'l Sup't of Plant

W. R. DRIVER, Jr., Gen'l Sup't of Traffic N. HAYWARD, Engineer

P. O. COFFIN, Auditor of Receipts

E. C. WILEY, Auditor

Managing Editor, E. H. HAVENS, 17th and Filbert Streets, Philadelphia to whom all communications should be addressed

SUBSCRIPTION PRICE:

To employees of the above Companies
To employees of OTHER BELL COMPANIES,
payable in advance NO CHARGE \$1.50 per an

Vol. IX

MARCH 15, 1913

No. 6

Perseverance and a Record

N unusual example of what persistent effort will accomplish is shown by a report recently prepared in the Harrisburg Division indicating the excellent results that have rewarded an endeavor on the part of the District and Local Managers to conduct each day, through the central office quarters, a specified number of subscribers.

On a subsequent page of this issue is reproduced a tabulation of the report, showing approximately 260 working days -between March 2 and December 28 of 1912-on each of which an average of forty subscribers and telephone users were conducted through our central offices and were shown the workings of the switchboard equipment and the operating methods in practice.

This record total of over 10.500 such central office visitors within ten months is sufficiently startling to commend the Harrisburg Division campaign to every telephone man who appreciates the great benefits resulting to subscribers and company alike therefrom. That so large a number of our patrons should have been brought to an appreciation of the accomplishment of our operating force is more than sufficient compensation for the time and efforts given to this work.

But a feature of this campaign which is perhaps even more compelling is the example of persistent effort that it affords.

That a score or more of men whose daily work was already sufficiently full should have approached this really ambitious task so confidently—should have stuck everlastingly at it, as the expression goes, with every confidence that in the end there could be no failure—is worth a dozen preachments, theoretical or philosophical, on the reward of perseverance.

It is a splendid record and does great credit to its makers.

The Weather and Work

T is a recognized fact that a cold temperature is conducive to enlivened energies. Conversely, we hear talk each summer of the "summer slump" in business or, if we are more particular, we term it a lessened activity. The condition is noted as the general tendency to rest on one's oars when the sun gets in its fine work.

Some people in the North think that the all-year mild climate of Southern territories bears on those who experience it to such an extent that their aims and accomplishments are permanently Whether this be true or not, lessened. both professional and business men know that the general public takes a rest during the hotter period of the year in the sections with varying climates. We must not be satisfied at this season with less than a proportionate increase of activities, whatever our duties may be.

It would be interesting to hear how this condition as it influences the public may be explained by medical men.

Fortunately, the reverse holds true. There is in business, at this time of the year, an increase along all lines which affects us perhaps second to none of the great industries. Considering even the presidential election year past the activity has been very noticeable. Salesmen are busy with prospects, and installers, operators and book-keepers are just as busy with their respective duties when these prospects have become subscribers.

It's an encouraging sight, whatever the cause. To prove that colder weather does make some changes note how briskly the passersby walk when the thermometer registers a few degrees lower than usual, and with what renewed vim they undertake both inside and outside duties at such times.

Listening, a Fine Art

'liberal education' in selling" said a man who had benefited by it—"involves dozens of points; in fact, there are so many factors that have their bearing on the success of the highest sellers of my knowledge that it would be difficult to list them. By the way, I prefer the name seller even to that of salesman. It seems to have life in it. I'll mention one habit that I've always found of greatest importance.—that is, a good seller must be a good listener.

"I have known sales to be made by my men that never would have been made

had they shown the least uneasiness when their prospective customers were reciting minor experiences. I don't want to imply that to sell necessitates hanging around while prospects retail jokes and experiences without points or value. Every man knows or should know the difference between time well spent and that simply wasted. But to be able to sell requires a good listener as well as a man well informed on his own and his competitor's selling arguments.

"Haven't you met the impatient buyer who with a thought to express hurries it into words and then aims with a gesture or other action to cut short your further suggestions about goods? Well, he is a type to whom all of my men are taught to listen. That's one reason why I'm so proud of my gains over others who are selling similar goods in this territory."

A Big Advance

F you telephoned a man about a matter of minor importance and he said, "Let me have memorandum (written statement) on that," it is natural, isn't it, for you to wish that you had written at first and had not taken the time to telephone! Life is too short to duplicate efforts toward the lesser accomplishments—especially as we are educating ourselves to get things done without loss of time.

The minimizing of just such unnecessary methods as this one is another one of the little forward jumps made in the telephone business. We, who always consider telephone conversations as definite and of sufficient urgency to require immediate action, have—perhaps indirectly but none the less surely—influenced telephone users everywhere to do the same. They accept requests and orders by telephone as if confirmed in writing, and thus establish oral orders from recognized voices as solidly in the business world as written ones were a few years ago.

There are of course instances in which requests and statements, affecting even minor subjects, must be in writing in order to permit the forwarding to other people; also some orders, when time permits, are properly confirmed in writing. But the vast majority of such conversations may be insured by memoranda written by the recipients until the work is completed. The elaborate files of such typewritten requests marked CON-FIRMING belong to bygone daysthanks to the telephone.

F.C. Moody, Plant Superintendent

R. FREDERICK CLARK MOODY, recently appointed Plant Superintendent, Philadelphia, has thus far devoted twenty-three years to Bell Telephone

Born forty-five years ago in Camden, Maine, Mr. Moody attended the public schools there and in Boston, and later took a course in Mechanical Engineering in the Massachusetts Institute of Technology.

In December, 1890, Mr. Moody entered the laboratory of the Mechanical Department of the American Telephone & Telegraph Company at Boston and seven years later entered the employ of The Bell Telephone Company of Philadelphia.

Mr. Moody's first duties in our territory were in the Engineering department, soon afterward becoming identified with construction work. His appointment as Superintendent of the latter department came just prior to the rapid changes of our overhead to underground plant in this section. The problems met by that part of the organization may be indicated by the statement that during the ten years (between December, 1897, and December, 1907) of Mr. Moody's occupancy of this position the Philadelphia Bell stations increased from 7138 to 95,914, or over thirteenfold.

On March 1, 1908, Mr. Moody was appointed Plant Superintendent, Eastern Division, and had charge of the Pennsylvania territory surrounding Philadelphia. Two years later, when the Western Union Telegraph Company became more closely identified with the Bell System, Mr. Moody was appointed Assistant to the General Manager to perfect a more intimate relation with the Telegraph Company in this territory.

On December 1, 1910, Mr. Moody became associated with The Missouri and Kansas (Bell) Telephone Company, and for two years was stationed at Kansas City, Mo., as General Superintendent of Plant of that Company. After two years' service in the

West he returned to Philadelphia as Engineer of Outside Plant, and on January 1, 1913, was appointed Plant Superintendent of our Harrisburg Division

Effective March 10, Mr. Moody was appointed Plant Superintendent, Philadelphia, succeeding Mr. W. T. LaRoche.

John Chase Nowell

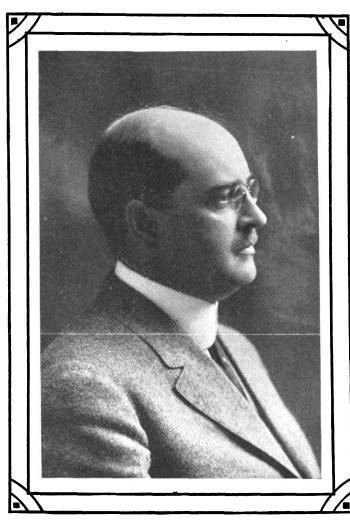
(Continued from page 1)

makes for the warmest personal regard of every co-worker, we suggest that there may be found in the inspiration and example set by "J. C. N."

His removal to San Francisco has been so unexpectedly announced and so quickly effected that comparatively few of us have enjoyed the opportunity to express to Mr. Nowell our pride in his promotion so splendidly earned, the many good things we wish for him in his new field, and our personal regret that the Pacific Company's gain should have to be our loss. And however great Mr. Nowell's work and responsibility on

the Coast may be, we know how splendidly equipped he is to shoulder his burden of both; the success which is assured him in that great territory—thirteen hundred miles long and half as wide—will be watched by every Bell-of-Pennsylvanian with the greatest of satisfaction and pride.

Again we congratulate the men of the Pacific Company, with the assurance that our experience in Pennsylvania is convincing that they have drawn to themselves a notable example of capability and of Bell loyalty.



F. C. Moody, Plant Superintendent, Philadelphia

William Tell LaRoche

(Continued from page 1)

had capitalized to a remarkable degree in the conduct of his department work in the Philadelphia Division.

Known by practically all of the men who have served in his employ, Mr. LaRoche enjoys the congratulations and best wishes of each and every one. It is recalled, as a remarkable feature of his telephone career, that he has served as an immediate subordinate of Mr. Nowell for a continuous period of seventeen years. And to this the Plant department and the Companies point with prophecy that our new General Superintendent of Plant will add to the formidable record which his predecessor has established.

THE TELEPHONE News congratulates Mr. La-Roche most heartily on this newest recognition of his splendid service to the Companies.

Organization Changes

The Bell Telephone Company of Pennsylvania

Mr. H. B. Porter has been appointed Plant Superintendent of the Harrisburg Division, vice Mr. F. C. Moody, transferred.

Mr. H. N. Reeves has been appointed Supervisor of Equipment, Philadelphia Division, vice Mr. H. B. Porter, promoted.

R. C. Mason, formerly in our General Commercial Superintendent's office and more recently Special Agent, Western Union Telegraph Com-

pany, became Special Agent, Publicity Department, of our Company on March 1.

F. B. Wright, Clerk, Harrisburg Plant to Philadelphia Accounting Department.

Marie L. Gilbert, Bookkeeper, Philadelphia Accounting to Germantown Commercial Department.

W. A. Stover, Wire Chief to Special Wire Chief, Philadelphia, Pa., succeeding H. Hamilton, transferred to Pittsburgh.

J. G. Emmons, Assistant Wire Chief to Wire Chief, Spruce, Philadelphia.

The Central District & Printing Telegraph Company

W. H. Mercer, Jr., Supervising Engineer, transferred from Bell of Pa. to C. D. & P. Tel. Co.

Paul Drewitz, Installer to Specification Writer, Pittsburgh, Pa.

H. K. Sarver, Supervisor of Salesmen to Local Manager, Johnstown, Pa.

The Marietta (O.) Sub-District of the Wheeling District has been merged with and now forms part of the Parkersburg (W. Va.) Sub-District of the Wheeling (W. Va.) District.

C. Montague, Local Manager, Parkersburg, W. Va., to Washington, Pa.

Edward Reiser, Supervisor of Salesmen to Local Manager, Wheeling to Parkersburg, W. Va.

Thos. M. Snedden, Specification Writer, Pittsburgh, Pa.

Dinner to Mr. Nowell

Upon the announcement of Mr. Nowell's removal to the Pacific Coast and his immediate departure from the city, a farewell dinner was tendered him at Kugler's on the evening of the seventh by sixty-nine of the men who have been most closely associated with him in the organization, largely from the Plant department.

At the conclusion of the dinner Mr. Meixel, as toastmaster, called for responses from twenty-four of those present, among them Mr. LaRoche, who—on behalf of Mr. Nowell's friends and associates—presented the guest of the evening with a handsome loving-cup bearing the following inscription:

PRESENTED TO JOHN C. NOWELL

AS EVIDENCE OF THE ESTEEM AND AFFECTION OF HIS FRIENDS IN THE SERVICE OF THE BELL TELEPHONE COMPANY

IN PENNSYLVANIA
ON HIS PROMOTION IN THAT SERVICE AND
DEPARTURE FOR THE PACIFIC COAST
MARCH 7TH, 1913.

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The Telephone Operating Force*

By W. R. Driver, Jr., General Superintendent of Traffic

HOSE who direct the work of arranging for meetings of telephone societies are rapidly becoming convinced that those societies do not completely fulfill the purpose for which they were created unless their meetings give those who attend a chance to come to a full realization of the whole extent of the Telephone Company's operations.

A telephone society meeting such as this provides for the membership a real opportunity in that there can be obtained a complete rather than a partial impression as to the scope of the Telephone Company's activities. There should be more of such meetings. I have frequently made remarks at telephone society meetings in which I have insisted that the men members of those societies must understand that there really is a large force, other than themselves, doing the Company's work night and day, year in and year out, which is that most important work of handling telephone calls, and all of which work comes about as a final result of all of the planning, constructing, maintaining and selling work that the men in the service carry on. Such meetings as this do away with the necessity for having the men members of telephone societies exercise their imaginations in order that they may become assured that there really is that large force of telephone operating people of whom they have heard only, and whose earnestness and loyalty to the Company's interest challenges theirs.

Your telephone society, Mr. President, has asked me here to perform what is a very pleasant duty, that of introducing you telephone men of Western Pennsylvania to the members of this Traffic force of operating people. It is necessary that you understand this telephone operating force; to know of the manner of and the care taken in selecting the members of that force; to understand their duties, their responsibilities, and the successes with which their work is done. You must be brought to realize the number of people constituting that force, and you must know the real worth to you of such a force, in which we Traffic men take a great deal of pride. Your telephone society has, in numbers, comparatively few Traffic men, but they have, I know, frequently insisted upon calling your attention at telephone society meetings to the excellence of the work that this Traffic force carries on.

You men of the Company fare well at the hands of the public because of the efficiency of the work done by central office employees.

I have selected a good subject for this paper of mine this evening, for the reason that I am to talk about people; as loyal, patient and earnest a force of people as can be gathered together.

Your Company, operating here just west of the Alleghany Mountains, employs over 4400 people, of which 2200 make up the central office operating forces.

In these Companies which we operate, 11,300 people are employed, of which number approximately 6000 are engaged in central office operating work.

In order to obtain a sufficient force of central office operating people, and to maintain that force numerically at the proper point, applica-tions are received yearly throughout the territory of these Companies that we operate from 20,000 who wish to learn telephone operating work. Eighty per cent. of that large number is

not accepted. Of those who attempt the work of learning, less than one-third succeed in passing successfully the tests that are applied.

This Company here selects and trains, from the number who apply, 5000 recruits each year. Quite one-fifth of the operating force leaves the service each year, and their places need, of course, to be filled.

You will see, therefore, that the operating people who are here to represent to you that phase of the Company's work is a carefully selected, carefully trained, and therefore efficient group; trained under those who know the needs of the service, and therefore are qualified to teach.

I might describe to you in detail the processes employed in selecting, training and supervising the telephone operating forces. By doing that I might accomplish something that would be of interest to you; but all of that detail explanation has been given to you at some telephone society meeting or other by other Traffic men, or will be.

I might quote statistics of traffic that might be of considerable interest to you, but my effort here is first, as I have said, to introduce you men to this telephone operating force here so splendidly represented.

Now to you members of the telephone operating force. The men whom you see here to-night represent to you all of the Company's executive, administrative, engineering, constructive and supervisory ability. They are the men who are of immediate assistance to you in the handling of the work which is your responsibility. men have shown invariably ample evidence of their recognition of their indebtedness to you, and they never show themselves lacking in willingness and ability to convince others of their own belief in your earnestness and loyalty to the work which we, all together, are carrying These men here are always ready to back up and to aid you in your work in any way that seems to them to be in their power. Their attitude to you is one which combines every readiness to help with the utmost respectful care. Asking you here to-night is only one little way in which these men can really show their appreciation of you and your interest in their work.

Here you see we have the Telephone Company in all its branches of work thoroughly represented—its operating force, comprising those who do the daily work of operating, as a result of which the Company obtains its returns, and also that large force of men whose work is devoted to the purpose of planning for, selling and supervising the carrying on of the service which this operating force is furnishing.

The Telephone Company's ORGANIZATION is, as I say, here completely represented. It took some time to develop the idea of such an organization as the Company has here, and it took some time also to develop the personnel of the organization itself. Organization, by the way, is a name only unless individuality exists—selfcontrolled individuality.

Work that is carried on on so large a scale as is this telephone work demands that employees shall specialize, each in the particular work for which he is best suited.

It was a very gradual process also to develop a trained force for each of the several branches of the Company's service. The organization is complete, and the personnel of the organization is excellent.

Having formed an organization of specialists, such as is represented by those employed in several departments-Commercial, Plant, Traffic, Engineering, Accounting, and so on—it naturally is necessary to subdivide the work within each of those departments by organizing and developing forces of department specialists. Thus we have, in the Traffic department, a Traffic Engineering force and a Traffic Operating force; then again, there is a further subdivision of the Traffic Operating force into those who plan for the work of to-morrow, those who inspect to determine the success with which the work of today is done, and those who do the work of today. A further subdivision of those who do the work of to-day provides a force of information operators, supervising operators, as well as recording, distributing and other operators, with a further subdivision into the day force, the evening force and the night force.

Throughout the whole organization of the Company, each specific duty is carried on by groups of individuals who are specialists, all for the purpose of making efficient the handling for the public of the telephone service which it, the

telephone-using public, buys.

So we have many hundred individuals forming the Company's organization. Each individual is a specialist in the work for which he or she has shown the most aptitude. That organized force of individuals must be guided in such a way that there will not be lacking a uniformity of action, and so there must be of necessity the gradual development of regulations, routines and rules for their information and guidance.

Regulations, routines and rules have, as you know, fallen upon you like an avalanche during the past few years. Does that fact have a tendency to destroy whatever there is in each of you in the shape of individuality and personality? It seems probable that you think that it does have that tendency. If that tendency does exist, should it continue to exist to the extent of making you individuals, you specialists, mechanical only in the carrying on of your daily work? Indeed not! Let us here consider the reasons which make it appear necessary to issue to you regulations, routines and rules. What are they? For what purpose are they issued? A REGULATION is an explanation of an

action that the Company has agreed to under-

A ROUTINE is an explanation of what appears to be an effective way for bringing to a conclusion a process that involves several consecutive actions by many people.

A RULE is an explanation of the one effective way in which to carry out one specific work.

All of these regulations, routines and rules have been developed as a result of painstaking study and long experience. No arbitrary action has been responsible for the development of any of them, nor has an action by one individual been responsible for the development of any one of them; all instructions, so far issued officially, represent the consensus of opinion of all in the telephone service who, after conscientious study. have shown themselves qualified to judge, and for that reason are authorized to decide. Still, there seems to have developed, because of the issuance of the very many sets of regulations. routines and rules, a point of view that is dangerous in that an impression seems to be gathering in the minds of many that the Telephone Company is determined that eventually there shall be brought about a complete elimination of This unfortunate impression individuality. seems to be gaining a foothold not only in this Company, but in each of the Companies which we operate.

That impression must be overcome, for the most valuable asset that the Company has is the personal initiative, the personal attractiveness and the personal straightforwardness that each individual in the Company's service possesses.

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^{*}Presented February 28 before The Telephone Society of Pitts-

An individual's personality and an individual's initiative are even of more value to the Company now than they ever have been. So it would be well, in order to retain intact those assets of immense value, for each of us to consider the effect on the individual of the carrying on of work by means of established routine instructions.

Let us consider the matter from the standpoint of instructions given to the telephone central office forces.

Central office operating work involves the manipulation of certain mechanical processes by individuals. All of that work results from personal verbal requests made by telephone users. In fact, there is involved in the handling of telephone operating work the exchange of information between the telephone user and the telephone operator. The information is exchanged by word of mouth in an entirely personal way, there being nothing whatever mechanical about it. That exchange of information demands of the operator something in the nature of individuality, the absence of which lessens materially the satisfaction to be obtained from and the attractiveness of any verbal interview.

Just as an instance in point: How should that personal verbal interview, as between the telephone operator and the telephone user, start? It took many years to develop the present method by which operators are advised to answer the calling subscriber. It seems a very simple thing to do, on establishing communication with a subscriber who is calling, to ask him what he wants, but much more than the mere asking of his wants is demanded by the necessities of operating practices. The answer must be made in such a way that it will be understood. The answer by the operator must be in the form of a request, which request is in the nature of a question. The answer must be brief, clear and distinct. The answer must imply of itself as to who is making the answer, whether operator or some other person. All of those things are taken care of in the present "Number, please." Those two words signify that an operator is talking. They signify that that operator is ready to receive a number. They signify that the one calling has been asked a question, if the inflection has been properly made. They signify evidence of politeness, and, when used properly, those words carry to the mind of the one calling exactly what the operator wishes to send, and included among those impressions that the operator wishes to create must be evidence of the operator's attractiveness or unattractiveness as to personality. Such is the description of one of the first, and probably the simplest, of some 500 rules for operating.

That one simple rule, established as a guide only for operators, if followed properly and combined with a proper inflection, shows an operator's training and individuality, and provides for telephone users that agreeable introduction at the start of a telephone call that is so necessary if that telephone user is to carry through his telephone transaction to his satisfaction. That one simple rule is for the beginning of the handling of the call. Several hundred rules are established as guides to operators in the phrases that may well be used during the work of handling telephone calls, all of which are as carefully thought out and are in reality as simple as the one just described.

Has an operator a better way in which to make answer to a telephone call? If she has and can convince others that she has, she shall use that other way. Surely an operator is not specifically ordered to confine her answer to the use of those two words. Surely a cheery "goodmorning" from a telephone subscriber would receive a cheery "good-morning" from the operator in return; at least, I hope so.

Routines seem to be bothersome in that they make the carrying on of the work more and more mechanical. That is true; but consider the real necessity for routines, if one piece of work is to be carried through each of several divisions or departments. There is nothing in any routine that cannot be changed, provided one can substitute a really better way. There is no part of any routine in existence that cannot be waived by one capable of the wisdom of waiving it. Routines, too, are guides, and very valuable guides, to all who expect to do their part of the work effectively.

A regulation is practically a promise of the Company. It may be waived by an official of the Company, but not unless that official is in a position to convince others of the wisdom of so doing. Not a regulation, routine or rule needs to be apologized for. Every one of them may possibly be improved upon. Each one of them is the best guide to us in doing our work until it becomes possible for us to provide a better guide. Whatever measure we are given with which to work, whether rules, routines, regulations, quart measures or yard-sticks, it is well that we use them unless some better basis can be provided by those of us who criticise.

The only possible remedy for whatever tendency we have toward becoming mechanical and hidebound is the development of personal care, attention and watchfulness in each individual. It seems too easy for the individual to take the attitude that whatever goes wrong can be taken care of in some way by the Company's organization. Really that organization is nothing other than an organized group of skilled individuals, each with a specific work to perform, and whatever responsibility there is rests on nothing in the shape of an organization but on the individuals who comprise that organization. Each has a duty and a responsibility.

Whatever of discipline is maintained among the members of the telephone operating force is for the purpose of providing an aid to the operating force itself in the handling of its own work comfortably. The maintenance of an appearance of discipline in an operating room brings about that visible evidence of orderliness that must exist if work is to be carried on in a methodical manner. Real orderliness is nothing other than individual self-control. The personality of the individual who is authorized to maintain discipline determines as to whether or not the Company's disciplinary measures are to be considered just or unjust.

Whether or not an operating room is to be maintained as a comfortable place in which to work depends entirely upon the personal care with which operating conditions are noted by those who supervise.

The Telephone Company has established with the public a splendid reputation for organized ability and for straightforward fair dealing. Whatever there is in the nature of serious criticism of the Telephone Company results from errors made by individuals, either errors of judgment to which all of us are subject, or errors made in the performance of daily work for which there is little excuse. Errors of this kind come about as a result of lack of personal care and attention on the part of individuals to the proper carrying out of daily routine work. Possibly it is not to be expected that the vast number of routines and rules with which you are provided are to be carried through without some error, but a care on the part of each individual, first to know the meaning and intent of the rules and regulations that are issued, then to have a

personal wish to see that they are carried out, is particularly important and can be better developed.

It is a duty of those who supervise telephone operating work in central offices, and of those who maintain the apparatus within central offices, to see that every facility is offered the operators themselves so that their work may be readily accomplished. The apparatus must be in order, the load must be properly distributed over the switchboard, records must be exact, and a sufficient force must be provided. With these things done, the responsibility for doing the actual work of handling telephone calls rests with the operating force itself. Capable as is that operating force, and though it is capable of excellent work, there is an improvement needed which can only come from the wish of the individual that her work may be carried through without error.

Supervision of a telephone central office, when properly done, allows that work may be done at a proper rate of speed, and at the same time with proper loads and at a proper efficiency as regards cost, but nothing in the shape of supervision can eliminate errors and irregularities unless the individuals of the operating force are willing to take personal interest in determining the reasons for operating errors and operating irregularities with a view personally to eliminating them. All in all, routines and rules point out the way in which it may well be done. The supervising force and maintenance force arrange the apparatus in the best manner. The individual of the operating force is then asked to do her work without error. That is the responsibility of the operating force, and one which no other part of the organization can successfully assume.

Just such propositions are put before operators hourly. Such arrangement for orderly handling must be prearranged by the men who plan.

I have no doubt that you realize and understand fully that the Company has adopted and is adopting means whereby the individual may come to believe and to know that his or her personal comfort is a special care of the Company The Company, that intangible thing, which is only an organization of individuals, knows that its interests will be best served by having in its employ a force of individuals who are deeply interested in the Company's success, and who are anxious, because of that interest, to stay in the Company's service. You know that plans, such as the Pension Plan, which provides many benefits, have been arranged by the Company for the purpose of making more comfortable the individual in its service. That Pension Plan is nothing other than a device whereby the Company may obtain better service through the development of interest by the individual in his or her work, through the making of the individual to feel comfortable as to the future, through assuring the individual that the interruption of work, through some unfortunate circumstance, will not necessarily lessen his ability to support himself. As for the operating force, it is the particular care of the Company to see that continual improvements in working conditions are provided as a benefit for the individual. Your Company is far and away ahead of the times in its watchfulness over the personal comfort of its working forces. Your Company, as a matter of business, if for nothing else, has always provided comfortable working quarters. Company has always insisted that the men of the force shall look upon the operating force that it employs with the utmost respectful care. Improvements in the working conditions and im-

Our Health

The first of a series of articles by Dr. Alvah H. Doty, Medical Director of the Employees' Benefit Fund Committee of our Companies,

[Plans for preserving the health of our employees by preventive measures are rapidly being completed. The appointment of Dr. Alvah H. Doty as Medical Director of the Employees' Benefit Fund Committee is a noteworthy step. As health officer of the port of New York, Dr. Doty was well known not only in that city, but to the entire medical world. His scientific contributions have always aroused great interest among the medical fraternity.

As mentioned in our February 15 issue, the system of health supervision and preventive sanitation is designed to improve the physical condition of all telephone and telegraph employees. This in itself is an enormous undertaking when we consider that 175,000 people are engaged in the work of these associated

There follows the first of Dr. Doty's articles on this subject—a treatment that is clear and of interest sufficient to make every employee and the members of his or her household feel the need of its careful reading. Were each employee to obtain this information at his own expense he would at once realize its thoroughness and definite value, for he would then study and absorb its contents point by point. Now that it is furnished without cost to all of us, it seems little enough to ask every employee to read and reread all of each article and to remember and practice its teachings.]

Air

N RECENT years the subject of hygiene, which treats of the laws of health, has received careful consideration on the part of the public, and special attention has been given to what are termed "preventive measures"; this refers to various simple and practical means which are employed to preserve health and protect against disease. The importance of this cannot be overestimated, for it offers a condition of well-being which could not otherwise be secured.

In order to obtain the benefits which these measures extend it is necessary to know the value of pure air and water, proper food, and the methods by which the body, the home and workshop may be cared for. In dealing with this we must first consider the subject of air, for it is this which is most necessary to life.

We live in a sea of air or atmosphere which surrounds the world at a depth of many miles; naturally this involves a great pressure, which is equivalent to a weight of over fourteen pounds on every square inch of surface at the level of the sea. One of the important effects of this pressure so far as the human body is concerned is to aid in maintaining the equilibrium of the heart's action and the circulation of the blood. When a very high altitude is reached this control over the circulation is somewhat lessened as the weight of the air is diminished, and the heart frequently becomes disturbed, and some of the very small blood-vessels often burst and nosebleed may occur. This condition is familiar to travelers who ascend lofty mountains, and it is usually unattended with danger unless some serious organic disease of the heart exists.

Air is composed of gases, principally oxygen and nitrogen, about twenty per cent. of the former and nearly eighty per cent. of the latter. There is also carbonic acid present. These gases which are mixed together do not change in their relative proportions. In addition there are watery vapor, and also various forms of impurities which vary in amount and composition according to the environments, the purest air being found at sea and in mountainous regions, where there are no means of generating offensive or poisonous gases, or sup-

plying other forms of *pollution. While the presence of nitrogen is necessary to dilute the air, for the oxygen alone would be too stimulating for respiration, and while carbonic acid is needed to support vegetable life, it is with oxygen that we are chiefly concerned, for of this we must have a constant supply to maintain our existence.

Through the respiratory tract the air reaches the lungs, where a vitally important interchange takes place. Here oxygen is absorbed into the system to enrich the blood and to aid in renewing the worn-out tissue of the body, and in exchange carbonic acid and other products representing waste matter are thrown off with the expired air. This interchange occurs in the minute air cells, of which the lungs are composed. The surface represented by these little cells is so great that if spread out would cover a space of five or six hundred square feet. The air cells also play a very im-



portant part in some diseases; for instance, in pneumonia they become filled with the product of inflammation and air cannot enter the portion of the lung involved, and if this condition is sufficiently extensive a fatal result follows; and in tuberculosis or consumption the cells are not only rendered useless, but ultimately are destroyed, forming cavities in the lungs which are found in the latter stages of this disease.

This teaches us an exceedingly important lesson, i. e. the value of keeping the lungs properly filled with fresh air in order that all parts of these organs may be kept in a healthy and active state. In this way the air not only reaches the cells, but it also allows free exit of poisonous waste products from the tissues, and renders the lungs far more able to resist disease.

Impure air is found both within and without buildings. Outside its source is the various industrial occupations, particularly where coal is used in large quantities, the combustion of which generates gases injurious to health. Too high or too closely constructed buildings, narrow streets which prevent proper circulation, refuse and decomposing organic matter are also frequent causes of impure air. Nature goes far to neutralize these unhealthy conditions by oxidation, by winds which rapidly

displace the air and freshen it, and by rains which wash out and carry down all sorts of impurities; instinctively we recognize the changed condition of the air after a storm. Sunlight and vegetation are also very important factors in securing this result. It is the great excess of impurities commonly found in the air and which nature is unable to deal with that constitutes the more serious menace to health from this source.

Within a building the most frequent causes of impurities are the exhalations and moisture from the lungs, mouth and skin of those present. Dust, improper plumbing and other unsanitary conditions are also usual means of vitating the air. The unpleasant odors which are almost always noticeable where large numbers of persons are brought together are due principally to decomposed organic matter from decayed teeth, mouth and skin, particularly where cleanliness is not observed. Therefore these unpleasant effects may be greatly diminished by the careful observance of personal hygiene.

In manufactories and mines there are in addition to the impurities above referred to products arising from the various occupations, such as particles of coal, stone and metal, which are largely responsible for diseases of the lungs so commonly found among employees of these places.

Air is carried into the soil, and when mixed with decomposed organic matter underground becomes offensive and unhealthy. Poisonous and inflammable gases are also generated beneath the surface, and may be found at a considerable depth; therefore when excavations are made, or during mining operations, these gases are frequently released and are not only detrimental to health, but often when exposed to flame or the oxygen of the air cause explo-Carbureted hydrogen, or "fire-damp," sions. is an illustration. This condition is not infrequently the cause of offensive and unhealthy cellars, for if the walls of these apartments are not properly constructed, underground gases may enter and not only cause unpleasant odors, but may contaminate milk or other foodstuff which is present.

It is not difficult to understand why those who work in mines are frequent victims of tuberculosis. In marked contrast to this is the fact that those who are most free from this disease are farmers and fishermen, whose occupation keeps them more or less constantly in the open air.

There is a popular belief that impure air is the origin of infectious disease. This is not true. The danger of impure air lies chiefly in the fact that it reduces the resisting power of the system and renders it far more susceptible to disease.

Modern sanitation has brought about a more serious realization of the necessity of pure air. both to the sick and to the well. Physicians know the importance of it in disease, and the windows in sickrooms are no longer closed, and certain affections are treated in the open air with the most satisfactory results, and medication in certain ways has been discarded. Sleeping in the open air is now a common practice, and those who adopt it under proper conditions learn the stimulating and invigorating effect of it. Fresh air is therefore a tonic, both in health and sickness, and a powerful factor in combating disease.

It is not necessary that the public should attempt to deal with the mass of literature relating to the scientific investigation of this sub-

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ject, further than to learn that impure air is not compatible with good health, and those who are constantly exposed to it have a lowered vitality and succumb more readily to disease, and we should always bear in mind that it is not the minimum but the maximum amount of fresh air to be sought for, and this can only be found outdoors.

While it is impracticable for many to secure extended outdoor exercise, there are but few who, if they try, cannot find in some part of the twenty-four hours an opportunity to exercise in the open air. The belief that night air is detrimental to health is without foundation. It was formerly believed that it bred malaria; now we know that this disease is transmitted from one person to another by the mosquito, and that exercise even after sundown is also very beneficial. Careful attention to this important requirement returns a large interest, for in a way it compensates for many hours, of indoor work under unfavorable atmospheric surroundings. By this means health may be maintained.

Dwelling houses and apartments should so far as possible be selected where good air space exists, away from narrow streets, high buildings, manufactories or offensive trades. Residence in suburban towns should be encouraged in order that pure air may be enjoyed, even if it involves time and discomfort in traveling, for it will secure better health and longer life, and is particularly necessary for children, for the latter are like plants and must have fresh air and sunshine to thrive.

Ventilation or the purification of air within the house has chiefly to do with the cold months, for in summer when the windows and doors are open sufficient air is usually secured by natural means for all purposes. While the most complete ventilation does not secure all the value of outside air, it is important that it be given the most careful attention in connection with the hygiene of our homes and workshop.

In this as in the purification of air, nature plays a very important part, for owing to the great pressure of the atmosphere and the law of the diffusion of gases it is practically impossible to prevent air from passing into the house, for it will enter every opening no matter how small it may be, even through bricks and mortar; still, this does not secure the needed amount and it devolves upon us to use every effort to obtain a constant supply of fresh air.

Air which is warmed becomes lighter, expands and ascends, therefore it will more quickly escape from a higher level in the apartment; for this reason exits for impure air should be arranged in the upper part of the room. Cold air is more condensed, heavier, and descends, and may be better introduced at a lower point, although this should not be too close to the floor, for the fresh air which is below the temperature of the room may be uncomfortable about the feet of those in the apartment, and may also cause colds or other unpleasant conditions. Furthermore, air for ventilation should not be taken too close to the ground, for the surface contains decomposed organic matter and other forms of im-The incoming current should if possible be given an upward turn. In this way it better mixes with the impure air and dilutes it. It is also desirable that the force of this current or draft should so far as possible be diminished on entering the room, particularly if the air is frequently introduced. This may be modified in a simple way by the use of cheesecloth or some other loosely woven fabric, or fine wire netting placed over the opening which admits the air. If such articles are employed they should be frequently changed or cleaned. These points are followed by engineers in supplying ventilation to great buildings and even in large dwelling houses. ' By modern apparatus it can be so arranged that those present are not conscious of the continued withdrawal of impure air or of a constant supply of fresh air.

While there are many simple, inexpensive and effective apparatus which may be purchased for ventilating the interior, each person interested should, if practicable, improvise his own method of house ventilation, not so much for purposes of economy as the education which is gained by a familiarity with this subject. Windows can always be opened, and by this means, if no other, fresh air can be obtained. Those who sleep outside or in an apartment where the air enters freely and who are protected by proper covering know full well the healthful effect of this modern hygienic measure.

It must be remembered that the purification of the air within the building depends largely on cleanliness and other sanitary observances. The accumulation of filth in various forms, bad plumbing, defective heating and lighting apparatus, and other unsanitary conditions go far to neutralize the value of careful ventilation.

Various heating and lighting agents in use vitiate the air. A coal stove cannot be regarded as a sanitary or modern means of securing warmth, for the latter is not evenly diffused throughout the apartment, and when the stove is highly heated the air becomes unpleasantly dry and particles of organic matter floating about become charred and offensive. These details require careful consideration, for a certain amount of moisture is necessary, and if the air becomes too dry respiration is interfered with. The danger from a stove is not imaginary, for the combustion of coal forms poisonous gases, which frequently enter the apartment, particularly when fresh coal is added. Therefore, if stoves are used this danger should be guarded against by having the chimney or stove-pipe damper fully opened, in order that the gases may quickly escape. It is not an uncommon practice in sections where stoves are depended upon to leave the door open and partly close these dampers to reduce the heat. This should not be done. Besides the damper in the stovepipe or chimney should be so constructed that it cannot entirely be closed. Moisture may be supplied by placing a receptacle containing water on the stove or in its immediate vicin-

We have been taught that grate fires secure very excellent ventilation, and that the draft up the chimney takes with it the impure air in the room. While this is true to a certain extent, the suction force may also carry up the fresh air just entering the room and materially interfere with the ventilation of the apartment. In some instances, as a result of adverse winds, air may even blow down the chimney, with unpleasant consequences. It is enough to know that there are more simple and modern means of ventilation.

Hot water and steam are satisfactory and sanitary means of securing heat, for the warmth they supply is more equally diffused and the needed moisture in the apartment is less interfered with than when other methods are employed. Besides these agents consume no

oxygen and give off no product of combustion to vitiate the air. For these reasons electricity is also a very valuable means of obtaining heat; however, at present the expense of this method renders it impracticable for general use. Although, from a sanitary standpoint, hot air is inferior to steam and hot water, it may safely be used for heating purposes if the furnace is properly cared for and if fresh air from outside and moisture are constantly supplied for its operation.

While gas and oil present about the same objections for heating as they do for illuminating purposes, i. e. unhealthy products of combustion and the absorption of oxygen, it must be said that heating apparatus for the use of these agents have been so far improved that with care they may now be employed without

injurious effects.

It would be difficult to estimate the value of electricity as a lighting agent, for, as it has already been stated, it consumes no oxygen and gives off no products of combustion, and is far less heating than other illuminating agents. Before electricity was employed for this purpose it was exceedingly difficult to properly ventilate theaters and other buildings where many were congregated, and where gas and oil were used in large quantities for illuminating purposes.

In workshops there must be very free ventilation, particularly where employees are performing manual labor, for the exhalations from the skin and mucous membrane under these circumstances are greatly increased and more rapidly thrown off than where but little

physical exertion is required.

In the country, and to a certain extent in private dwellings or properly arranged apartments in the city, the danger of impure air is not so very great. Nor is the belief justified that the air in theaters, subways or public conveyances is injurious to health, for even it the air is more or less impure the exposure is of comparatively short duration, and nature supplies a tolerance of this to the extent that practically no harm is done, except possibly to the employees who are more or less constantly present.

The real danger lies rather in the constant exposure to impure air, particularly among those who live in closely built tenement houses, in districts where there is but little chance of securing even fair ventilation. It is here where sickness is constantly present, and it is very important that those who are obliged to reside in these places should be taught not only the value of fresh air, but the best means of securing it under adverse circumstances. They should know that aside from the efforts which they may make to secure this at homes, the most valuable remedy for these unpleasant surroundings is to remain outside as much as possible. We may learn much from animals in this direction, for their freedom from disease is in a measure unquestionably due to the fact that they are almost constantly in the open air.

A careful consideration of this subject will not only indicate the importance of fresh air in the preservation of health, but it will also prove that the latter may be maintained by means which are simple and practical. Of these the most valuable of all, particularly for those who are employed withindoors, is daily exercise in the open air, for instance by a walk of three or four miles or more. By following this course good health may be preserved and disease prevented even under very bad sanitary surroundings.

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The Telephone Operating Force

(Continued from page 5)

provements in the compensation given for work done are being made rapidly, and it is the constant care of the Company's executives and officials to see that the conditions of employment for its forces are such as will develop in the minds of the individuals the idea of personal service and a loyalty to the Company's service that cannot be equaled by any organization in this world.

Our standards of operating efficiency have been raised, and must be raised still further. In order to bring this about it is necessary that you look upon the guides that are given you, in the shape of rules and routines, as important, because this telephone business is as to size magnificent—magnificent now, and growing with great rapidity. It is necessary also that you establish in your own minds, each of you, the necessity for personal watchfulness and care, which must be continued unremittingly.

There is much to praise in the service that this Company is giving. That service is good, but it is by no means good enough to the extent that

makes the Company's patrons unanimous in believing that an improvement should not be shown.

I can point out to you nothing that the Company is not willing to do which will permit of a general improvement in the conditions of plant, ease of maintenance or accuracy of operating work; but it is for you to point out to yourselves, and you only can do it, where that specific improvement can be obtained that is so needed, which specific improvement will mean the lessening of error to an extent that will create, in the minds of telephone users, a real impression of personal service rendered by individuals in the Company's service, and that that personal service is the result of a personal care that really exists with each individual to an extent that is convincing.

I know that the officers of the Company all are gratified because of the evidence that you have shown of earnestness, loyalty and capability. I know also that they look forward confidently to even better results from your work in the future, because they believe that each one in the Company's service is willing and anxious to be his or her earnest, loyal, individual self.



Employees Who Entertained

The Telephone Society of Pittsburgh

The second telephone society meeting in the territory of the Associated Companies, in which the women figured prominently, was held in Pittsburgh on Friday evening, February 28. Mr. W. R. Driver, Jr., General Superintendent of Traffic, was the speaker, and as a record-breaking audience was expected, the Carnegie Auditorium on the North Side was chosen as the meeting-place. Although the floor of this hall accommodates over



The Largest Gathering of Women Employees at Any Telephone Society Meeting in Our Territory-



ttsburgh Society Meeting

900 persons, it was necessary to seat a few people in the balcony. The total attendance exceeded 960. This number beats the attendance at any former Pittsburgh meeting by over 500.

Between 500 and 600 girls were in the audience. Thirty-five Chief Operators had come in from the exchanges outside of the Pittsburgh Metropolitan District early on the day of the 28th. These had all met at the Operators' School, and until five o'clock inspected different metropolitan central offices. At five o'clock a reception was

held in the Hotel Henry, at which the visiting Chief Operators, together with more than thirty Chief Operators and Supervisors from the Pittsburgh District and about the same number of Traffic Supervisors and Inspectors, met Mr. Driver. At six o'clock a dinner was given to the officers of The Telephone Society of Pittsburgh and to the guests, including the Traffic supervisory employees.

supervisory employees.

Mr. F. K. Ewing, Traffic Superintendent at Pittsburgh, gave a breakfast for the thirty-five visiting Chief Operators on Saturday morning at seven-thirty, and the rest of the day was spent in further inspection of the metropolitan offices.

Mr. Boeggeman introduced Mr. Driver by referring to the honorable and important place which the name Driver has had in the telephone industry since 1880, when our own Mr. Driver's father, now Treasurer of the American Telephone & Telegraph Company, first became identified with the telephone business.

Mr. Driver's paper on "The Telephone Operating Force" appears in this issue.

Following Mr. Driver's paper comments were made by Messrs. Ewing, Griffith, Geddes, Hayward, Crosman and Martin and by Misses Jackson, Coleman, Miner, Crawford, Devey, Logan

and McAleese. Mr. Ewing expressed his appreciation of the record attendance and of Mr. Driver's inspiring speech. Mr. Griffith said that Mr. Driver's plea that we put our heart in our work appealed to him most strongly. Mr. Geddes said that he believed the girls should be invited to a meeting of the society at least once a year. Mr. Hayward humorously explained that the reason he is such a good Engineer is because he was formerly a Traffic Manager, and added that he retained a keen interest in all Traffic problems. Mr. Crosman said that while his experience had been gained in the Accounting and Commercial departments, he knew good service and considered it of the utmost importance. He added that he hoped everyone in Pittsburgh would give Mr. Stryker, with whom he had been associated in Harrisburg, the heartiest coöperation.

Before the meeting an organ recital was given by Prof. C. P. Koch, City Organist. Directly after this Miss Cusick, of the Pittsburgh Toll office, sang, At the close of the meeting Miss Hill, also from the Pittsburgh Toll office, played a violin solo, and W. H. Hay, of the Plant department, sang.

(Other Society News on page 16)



Women as Guests at The Telephone Society of Pittsburgh, February 28, 1913

Chart Showing Number of Daily Visitors to Harrisburg Division Central Offices During Ten Months of 1912—Results by Persevering Employees (See article on page 11)

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Visits to Central Offices

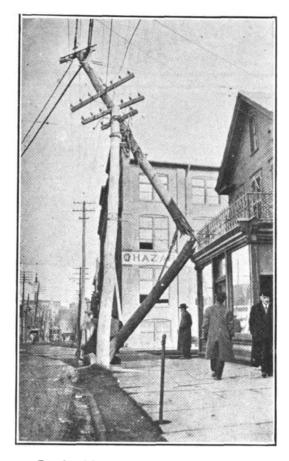
(See chart on page 10)

HEN the Company adopted the practice of extending formal invitations to our subscribers to visit the central offices, the District and Local Mangers in the Harrisburg Division, seeing the great dvantages to be derived from such visits, entered ery heartily into the plan. They began by making selected lists of subscribers and sending to hem the neat card which the Company had presared for this purpose. The results of these isits, however, did not nearly equal expectations and our District Managers were very much dispointed that the subscribers to whom they had ssued invitations did not respond more readily.

This plan was given a thorough trial. While he results were not encouraging, yet our Mangers believed that the advantages to be derived from such a plan were so great that it should not be abandoned without having been given a horough trial; therefore they continued to send nyitations to additional subscribers for several weeks, but with little or no success. When spoken to regarding the invitation, the subscribers almost without exception seemed to appreciate the courtesy extended to them, but stated that they found it inconvenient to accept. While many said they would like to visit our central offices, they simply lacked the time to do so.

After giving that plan further consideration and profiting by experience, our men decided to ry out a somewhat different one. Each Local Manager determined to prepare a list of five r six or perhaps a dozen subscribers every day. These he was to communicate with by telephone or by personal call in order to extend an inviation to visit the central office at a certain hour luring the day. In each case the Local Manager old the subscribers that he would be very glad o conduct them in person through the office and xplain its workings. The Local Manager even vent so far, if he was unsuccessful in getting a ufficient number of subscribers to accept his initation, to go out on the streets and ask subcribers whom he met and with whom he was equainted if they could not spare ten or fifteen ninutes right there to make an inspection of our entral office. This plan was highly successful. Vhile he met with many refusals, a few minutes' onversation with a subscriber would frequently onvince him that he really had a few minutes o spare and that he would indeed like to inspect ur central office and see just how telephone conections are made. This plan proved very sucessful, and for the period from March 2, 1912, ve had 10,595 visitors to our various central fices in the Harrisburg Division.

There were a number of somewhat remarkable neidents in connection with these visits. For nstance, in one of our larger cities a personal witation was extended to the officers and direcors of a large banking institution, and the in-itation was accepted. They visited the central ffice in a body. Afterwards we received a very ourteous letter thanking us for the opportunity to isit our central office and stating how beneficial had been to all of them. In other cases invitaons were extended to the senior classes of high chools, and were gladly accepted by the princials of the schools who conducted the classes sections to the central offices. In some of the ities, the business colleges when learning that the enior class of the high school had been invited, equested that the same invitation be extended to ieir schools.



Result of Train and Trolley Collision at Wilkes-Barre, Pa. (See page 13, column 1)

There were, of course, periods during which it was very difficult to secure visitors, and a weekly chart which was kept shows considerable fluctuation. However, as a whole the plan has worked out admirably, and it is believed that much has been accomplished in the way of educating our subscribers along telephone lines.

The Local Managers kept daily records of the names and occupations of the visitors and sent weekly reports to the District Manager, giving this daily record. If no visitors were received on any particular day, the reason was noted. The District Managers forwarded this complete record to the Division Manager, who entered the totals on a chart so that it was known each week how many visitors had been conducted through each of our various central offices.



Allentown District

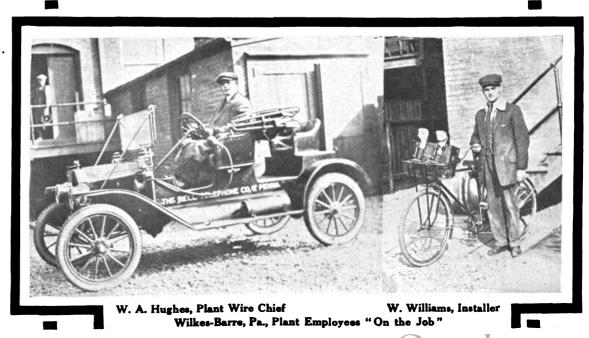
At our invitation a delegation of twenty from the Missionary Society of the First Presbyterian Church of Easton, Pa., were shown through the operating room at Easton. One of the members was so pleased that she asked if she would be allowed to show friends from other cities through the office. They were visiting her at her home. The request was quickly granted.

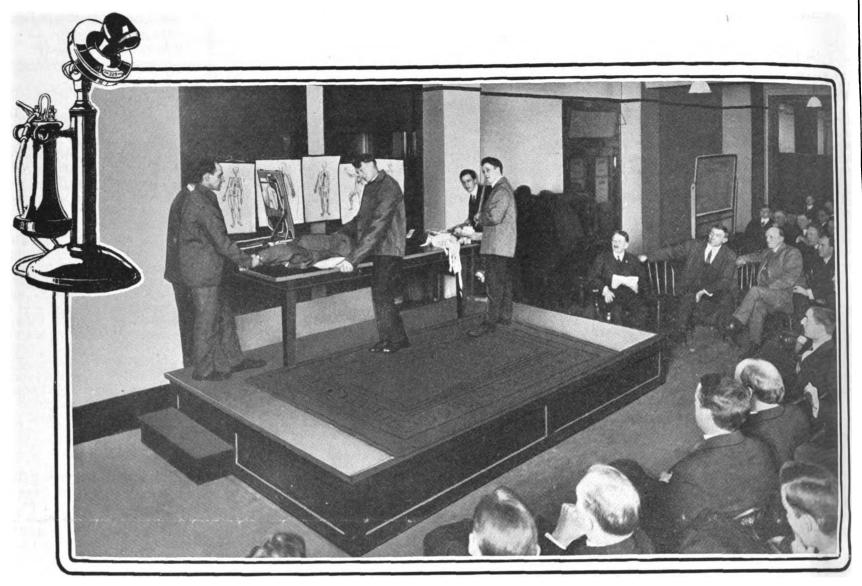
On February 11 the Local Manager at Easton received a circular letter sent out by a committee from the Board of Trade relative to the Child Labor and Women's Employment Laws. On the next day a hearing was to take place at Harrisburg. In the circular letter a suggestion was made to have either a letter or telegram in the hands of representatives not later than Wednesday morning, February 12. The Western Union clerk obtained a list of employers from the telephone directory and called each by telephone, asking if he or she intended to send a telegram; if so, the Company would be very glad to take the business and have the amount charged to the user's account. This resulted in securing 22 telegrams and four day letters.

Altoona District

A central office has been established at Bellwood, Pa., a point midway between Altoona and Tyrone. At this location we had but four stations in service, two of which were public telephones. It is estimated, however, that with the establishment of our central office we will be able to show a gross gain of 90 stations within the first year. This exchange was placed in service February 15, after an unusually good piece of work by the Altoona Plant department, considering the fact that numerous poles and a large amount of cable were to be erected. It is thought that this was a record installation.

Favorable comments on Elbert Hubbard's booklet, "Our Telephone Service," were received by Mr. A. W. Beckman, Manager of "The Baker Estates" at Altoona, and from Mr. Wm. F. Gable, of the Wm. F. Gable & Co. Department





First Aid Lectures, Pittsburgh. Inducing Artificial Respiration. Pulmotor near Subject

Store in that city. Mr. Beckman said: "The rugged and interesting face of Mr. Vail interested me particularly. I have always read his annual reports with great interest. They seem so full of common sense and fairness that it is impossible not to admire the mind behind them."

Mr. J. N. Tillard, Altoona Chief of Police, acknowledged the receipt of a Western Union 1913 "Collect Card" by saying, "I had occasion to use the card a number of times last year and appreciate the courtesy of the Company."

Harrisburg District

Suggestion slip "work" is progressing finely in this as well as other districts. At Carlisle these employees sent slips: Bessie W. Lindsay, W. C. Line, G. R. Keim and H. S. Michener. Revenue valued at \$108 was obtained from these. At Chambersburg, L. Bwitsfield, J. and L. Palmer. Bertha Scheible and F. Wingler should be credited with \$79 worth of net new business. At Harrisburg, \$550 worth of service came from slips sent by Ruth Addams, E. H. Bitner, R. Eldridge, Florence Feass, W. Fitzpatrick, W. M. Gardner, Alice E. Gingher, I. W. Hetrick, Kathryn M. Jacobs, Mary Lick, F. F. Lutz, H. S. Michener, M. E. Morgenthal, Mayme Rudy, R. Stambaugh, S. B. Steffy, H. W. Stewart and J. L. Strickler. At Lancaster, Bess Bitner, H. Gorrecht, C. Haverstick, Emma Herzog, W. Horn, Rose Kirschner, E. P. McKinney, R. Naugle and W. Weitzel helped to the extent of

\$198. The York employees, M. J. Allison, F. Cunningham, R. R. Mutzebaugh and W. H. Smith, added \$106 to the returns. There are other York employees—oh, yes!—but these four were most interesting in February to Commercial workers there.

The following letter was received from the Harrisburg Foundry and Machine Works relative to telephone service recently installed:

"I take this opportunity to thank you very much for the extremely prompt attention you gave to my request of the 17th inst. with reference to installing a telephone in the residence of Mr. M. H. Miller. This telephone was put in place within an hour after my request reached you, and it is needless for me to say that Mr. Miller appreciates this promptness as well as myself.

Again thanking you very much, I remain,

Very truly yours,

Chas. E. Pass."

The following is a statement made by Miss White, Factory Inspector, who was in our Harrisburg office February 13:

"I have had charge of the ——— District for ten years, and have had occasion to visit many telephone exchanges, but in all my travels I have not visited any better equipped, more sanitary or more cheerful building."

Another new rural telephone company was organized at Mercersburg, Franklin County, Pa. January 22, with twelve subscribers. These subscribers fill up an open space in the lower left-hand corner of the map of the farmers' stations lately shown in our paper. The line will be about nine miles long, running directly southwest of Mercersburg.

On Monday afternoon, February 10, at three o'clock an accident happened to the furnace at the Werner Hotel, Waynesboro, Pa., crippling the heating plant to such an extent that a large part of the house could not be heated. At four oclock a manufacturing company in Philadelphia, that furnished the plant, was called by telephone and a number of parts weighing 1200 pounds were ordered by express. The repairs were received at eight o'clock the next morning and by ten o'clock the entire heating plant was put in operation. The telephone here saved as much as it annual service charge for that hotel in hurrying repairs during changeable winter weather. Guest were scarcely inconvenienced.

Reading District

At Pottsville private branch exchange service will be installed for the Philadelphia & Reading and for the Madeira Hill coal companies. Each will be of the No. 2 type, one of nine and the other of four stations.

A Shamokin woman who has been an Oppostion subscriber for years was won over to Beservice a few days ago. We never know what?

Digitized by GOGIC

Three Other First Aid Demonstrations in Pittsburgh

Wire gauze splint applied to left leg. Wire gauze splint and sling applied to right forearm. Tourniquet applied to right arm.

LOWER LEFT:

Splint for compound fracture of right thigh. Simple fracture of left leg. Dressing for cut on temple. Tourniquet applied in armpit to stop bleeding when arm is severed.

Carrying injured man after applying first



little courtesy or act of good service may do for us. Our installer showed the subscriber, who had been accustomed to magneto service, how to use our common battery telephone. At first she could not realize how simply she could get the operator. When the signal system was explained, she became a delighted possessor of our service.

Miss Marguerite Yocom, Chief Operator at Pottsville, received two letters of commendation from telephone users just a few days ago. Both referred to long-distance calls. One call to New York was completed in two and one-half minutes. The user said it was his most satisfactory service in all of his twenty-three years as a Bell user.

Scranton District

The Lansing Hardware Company of Scranton sent out circular letters to 10,000 rural residents of Wayne, Pike, Lackawanna and Monroe Counties in Pennsylvania. In them they mentioned their Bell telephone service and solicited such orders for all kinds of housefurnishings, hardware, etc. They deliver these goods by parcel post. Inasmuch as they guarantee to pay return charges on goods not accepted, it is probable that their telephones will do a rushing business. SMITHING.

Wilkes-Barre Pole Damage

Our Plant Wire Chief, W. A. Hughes, worked rather late January 6 and did not start for the street-car until too late to catch the one leaving

the square at 9.15. However, as the next car approached the railroad, near Hazle and Washington Streets, he learned that the car he missed had been struck by a coal train and one-fourth of the forty passengers were injured. The force of the collision carried the car across the street. overturned it, crashed in the roof and broke off our telephone pole about fifteen feet from the ground. The illustration shows the damage.

Mr. Hughes returned to the office, telephoned Plant Chief R. O. Deming, and by 10.30 a construction gang had brought a forty-foot pole; no fifty-foot pole was then obtainable. The broken pole was repaired temporarily by 1 A.M. Two days later a full-length permanent pole was erected and the transfer was completed.

> SHAFER. (See illustration on page 11)

Williamsport District

A residence subscriber at Williamsport ordered her telephone disconnected to reduce her ex-Three days later illness in the family necessitated the disturbance of her neighbors and she hurried the reconnection of her own telephone. She had been a subscriber for twenty years and considered this "economical" act as "one of the most foolish things she had ever done."

Of 18 calls made from a public telephone in our Williamsport Business Office, 17 were completed in 90 minutes. The patron made numerous pleasant comments about it before leaving.

"First Aid" Lectures at Pittsburgh

By G. B. Ridge, Supervisor of Construction, Pittsburgh

Dr. M. J. Shields, Field Representative of the American Red Cross Society, has been giving a series of very interesting and instructive lectures on the subject of "First Aid to the Injured" to the Plant employees of the Pittsburgh District. There were in all thirteen lectures with a total attendance of 725.

In each of his lectures Dr. Shields pointed out that "the best first aid is to prevent the accident; but if that cannot be done, the next best thing is to render prompt and efficient aid to the injured person." He said: "The injured person may be saved a large amount of pain, and in many cases his life or limbs may be saved, if there is some person at hand who knows what to do and what not to do in the way of first aid.

At the conclusion of his introductory talks Dr. Shields gave practical demonstrations of the methods of applying first aid dressings to various injuries, showing the uses of the various articles contained in the Bell Telephone First Aid Boxes. In these demonstrations he used a subject who volunteered to act as an injured man. At the last three lectures the Draeger pulmotor was exhibited in connection with the instruction on methods for inducing respiration in persons overcome by electric shock, gas or drowning. As the resuscitation work is similar to all of these cases, the pulmotor is a most useful device. It is shown in one of the reproductions.

The last lecture of the series was given in the Assembly Room of the Jenkins Arcade Building, to an audience of about 175. The special feature of this lecture was a demonstration by a team of five men selected from those who had attended one or more of the preceding lectures. The good work done by these men shows the results that may be obtained by even a short course of instruction when given in a logical and practical manner by one well qualified to handle the subject.

Good Traffic Work in Wilkes-Barre District

During February, Miss Mae Lewis, an employee of the Traffic department at Plymouth, Pa., sent in five suggestion slips from which we gained eight stations. One of the suggestion slips resulted in four new stations, replacing opposition telephones which were installed when the opposition telephone company was organized about fifteen years ago.



First Aid Demonstrations [See description

above]

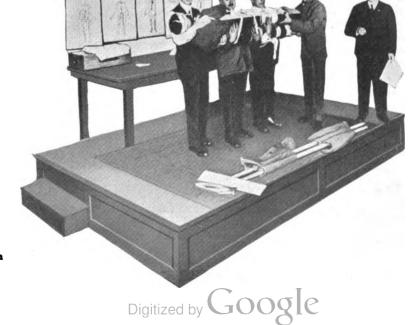




Exhibit
at
Industrial
Show
Camden, N.J.
February
10 to 15

[See Camden District News]



Bridgeton Sub-District

Four more positions are being added to the switchboard at Bridgeton. The work is to be completed by May 1. This will make an 800-line board with twelve positions. Four positions are for toll only, two positions combinations for toll and local, six positions for local only. Bridgeton is the fourth largest central office in the Atlantic Coast Division in New Jersey.

He Wanted Continuous Service

In moving his house, a subscriber in Vineland, N. J., had a fairly long loop from the pole. Instead of having his telephone disconnected he kept taking up the loop as fast as the house was moved, thereby having continuous service.

Charles Sayre, Jr., a Bridgeton messenger boy employed by the Western Union Telegraph Company, became interested in telegraph operating. After a period of instruction he became Morse operator at Bridgeton—a position that he held until recently, when he obtained a more responsible one with a railroad company. Other messengers throughout our territory might benefit by improving their time as this young man has done.

Multiparty line service has been replaced by direct line monitor switchboard equipment and five stations at the Seabrook Farms, four miles from Bridgeton. This is the first installation of this kind in that sub-district.

Camden District

The accompanying reproduction shows our exhibit at the Third Regiment Armory, Camden, during the big Industrial Show and Bazaar just given under the auspices of the Police Beneficial Association.

The booth was erected under the supervision of C. B. Wriggins, Chief Clerk of the Camden

District office, who is seen standing by the switchboard.

Many thousand pieces of advertising matter were distributed, including picture postcards, Blue Bell bangle pins and fans. The booth was never without a throng in front from the time the doors opened each day until they were closed.

Free local telephone service was furnished from two booths and several desk stands on the counter. Many availed themselves of the privilege of using the service, not only socially but in a business way. A Bell messenger with his megaphone was in attendance to page those who had appointment calls.

On February 26, a \$50,000 fire in the heart of the business section of Collingswood, N. J., caused considerable damage to our plant. The fire was said to have started in some tar paper about to be used in a new moving-picture theater. The complete damage to our plant amounted to about \$250. As a result of the fire, one heavily loaded pole came down and a great many lines were rendered useless.

New Directory Use

The other day D. W. Figner, Camden Traffic Supervisor, while on the street, consulted his watch and thought he had returned it safely to the pocket. However, when he arrived home the watch was missing. He was planning a trip out of town for the next day and failed to advertise the loss. On his return, he was about to write an advertisement when his telephone bell rang. The person calling asked if Mr. D. W. Figner was talking, and our Traffic Supervisor answered in the affirmative. The usual questions in such cases were asked, and Mr. Figner called at the man's office to identify his property.

"How did you learn," inquired Mr. Figner, 'that I had lost the watch?"

"I saw the initials on it, and referred to the local telephone directory," said the finder. "I took a chance, and the first time I got the correct man."

The finder who took such an original method to locate the owner was Mr. Arthur E. Davis, Grand Trustee of the Ancient Order of United

Workmen of New Jersey. His offices are at 200 Temple Building, Camden. WRIGGINS.

Dover Sub-District

Mr. A. B. Baxter was a delegate to the state convention of the Junior Order of America: Mechanics, held February 18 in the new State Armory at Dover. Illness suddenly made it impossible for him to attend and confined him to his bed.

Mr. J. H. Lewis, another member of that order and a telephone employee, learned of the misfortune and took it up with E. D. Prince, our Local Manager.

A circuit between Mr. Baxter's home and the Armory was run, and at the latter place three transmitters were installed. One of them was connected with a large graphophone horn. A head receiver was installed on one station at the Armory and another on the station for Mr. Baxter's use. When the convention was called to order, a member at the Armory used the head receiver there and transmitted to the members present the nomination of an officer made by the ill member. Other business was also conducted in this way.

So well pleased were all of the members, including the absent one, that they passed a resolution of thanks to the Telephone Company. This was later received from the Secretary of the Lodge.

PRINCE.

Doylestown Sub-District

At Doylestown these rural lines and stations have been obtained: Dublin 11 subscribers, Edson 1, Hinckletown 1; at Quakertown the Milford with 6 and the Richland with 1; at Ferndale the Ferndale line with 4 new stations.

HENNESSY.

Norristown District

A patron of a public coin-box station telephoned to a business associate a few days ago and asked for some information not then available

The recipient of the inquiry said he would obtain the information and call the coin-box user. "By the way," said he, "at what telephone shall I call you?"

The questioner looked at coin designation above the slots and answered: "The number of this telephone is 20-10-5!"

BEERER.

Wilmington District

Salesman Smith has sold the Souder Decorative Company and the Chamber of Commerce, being at Wilmington, private branch exchange service, superseding direct line equipment.

An emergency order telephoned in to the district office was O.K.ed two hours later by the Plant department,

Additional underground and aerial plant which will practically complete the underground in the city of Wilmington, southwest of the central office, will require an enormous amount of material. The list in a recent estimate report is interesting if for no other reason than its quantity CHAMBERS.

Other Department Aid

In our lists of employees who have forwarded slips suggesting that certain non-subscribers be canvassed, there was not included the name of a Rights-of-Way employee who has been very active in this work. H. W. Wayne, of the Philadelphia Division office of that department, have repeatedly sent in slips resulting in new business and our Commercial men who were successful "landing" this business want all employee credited.

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Butler District

Foreman Harry Moull is engaged at present n stringing a circuit from Kittanning to Adrian, Pa., to furnish service to the Bonner Telephone Company, a connecting company at Adrian.

An expenditure of \$8400, covering mostly new gables, is being made at New Kensington, Pa. The New Kensington exchange is growing rapidly, and with the report of the location of another large work it is anticipated a large amount of new business will be secured during the year.

A cordless switchboard with seven stations has recently been installed in the refining plant of the High Grade Oil Refining Company, Bruin, Pa. This contract supersedes a toll station and two multiparty line stations.

GOOD.

Erie District

Some time ago a subscriber connected with one of the exchanges in the Erie District reported to the Chief Operator that he could not hear distinctly over his telephone and that it must be out of order. The trouble proved to be very hard for several Plant employees to find. Finally the attention of Mr. Cleary, of the Erie Plant Supervisor's office, was called to this pe-culiar case of trouble. After making several tests, Mr. C'eary called spon the subscriber. A test call was made and the subscriber reported to Mr. Cleary that he could not hear distinctly. Mr. Cleary was struck with a brilliant idea: he suggested to the subscriber that he place the receiver to his other ear. When this act was completed, a look of astonishment appeared upon the face of the subscriber. Further tests confirmed the fact that the subscriber had been unconsciously becoming deaf in one ear. Before Mr. Cleary left his presence he was given a hearty handshake and told that he was a wonder.

It is the consensus of opinion in the vicinity of Cranesville, Pa., where our District Line Crew has been at work recently, that all the members of this crew are A1 firemen.

On the morning of February 26, 1913, fire broke out in a residence in the borough while the men composing the above crew were at breakfast. The fire-fighting facilities at Cranesville are not



Denslow Brothers, Bellevue, Pa. (See column 3)

very extensive and the dwelling where the fire originated was destroyed, but not until nearly all of the household goods had been removed to places of safety, on account of the valiant aid rendered by those men.

The names of the men who are to be credited for the above good work are as follows: E. O. Beaty, J. K. Stanton, Jesse Seybert (Foreman), L. Barstow, Wm. Brooks, Hiram Dunn, H. Ellvanger, S. Gelvin, E. Lynch, Amos Merkett, Wm. Pool, H. Poe, Gomer Seybert, Wm. Lantlinger and Wm. Weaver.

YOUNG.

Johnstown District

BEAVERDALE FIRE

A \$30,000 fire occurred in Beaverdale, Pa., twelve miles southeast of Johnstown, at 5 A. M., February 24. Seven stores and other buildings, including the Kensinger Hotel, were partly or wholly destroyed.

The fire (supposed to have started in rubbish stored in the basement of a drug store) was discovered about 4.30 A. M. Our central office, located in a second-story room over this drug store, was completely destroyed. An entire half block and several buildings in another block were burned and we lost approximately twenty telephones. About one hundred feet of 100-pair, 22-gauge cable and the same length of 50-pair, 22-gauge cable were burned. Our pole line was across an alley from the fire and we lost but two poles, although several were badly scorched.

Beaverdale has 43 stations. When the Johnstown Plant Chief, V. H. Dake, learned of the fire, he immediately telephoned G. N. Mereness, Supervisor of Equipment, Pittsburgh. The latter, with the assistance of D. F. Wright, Equipment Engineer, provided for a shipment of the necessary office equipment and cable to make immediate replacement. Mr. Mereness also arranged for men to accompany the material. Three installers left Pittsburgh with it at 12.40 P.M., arriving in Beaverdale about 6 P.M.

In the meantime a location for the new switch-board had been secured and at 8 A.M., February 25, the central office was in operation and the toll lines and six subscribers' stations had been restored to service. All remaining stations (outside of the fire zone) were in operation by noon of February 25.

New Castle District

A family in Beaver Falls that had a telephone installed is apparently trying to get full value. A few days ago the new subscriber called an operator and told her that she had put eggs on to boil and would like to time them—she desired them to boil only three minutes. Several days later the woman again called and requested the operator to call her every hour as it was necessary to give her baby medicine at intervals of sixty minutes. This subscriber also calls frequently to ask for the time, explaining that she cannot afford a clock.

Pittsburgh District

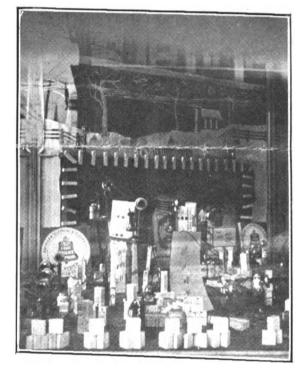
The distribution of the spring issue of the Pittsburgh Telephone Directory has just been completed. The issue consists of 93,000 copies and contains about 4000 more listings than the winter book.

The final copy was given to the Jersey City Printing Company, February 4, and the first carload of completed books reached Pittsburgh, February 21. The minimum time for transit is three days.

An attractive window display recently appeared in Denslow Brothers' drug store, 501 Lincoln Avenue, Bellevue. Twenty desk sets, two glass signs, two code "J" signs, and two Blue Bell light shades were used. During the period of display Blue Bell seals were used on all packages which left the store, and A. T. & T. advertising blotters were distributed. Denslow Brothers have two other drug stores, and they plan to use the display and advertising at both of them.

During the recent engagement of Irene Franklin, the well-known vaudeville star at the "Grand" in Pittsburgh, one Pittsburgh daily paper in publishing its usual run of "stories of the stage folk," featured the telephone service.

The article said that "Miss Franklin" and her husband talk each day with their four-year-old daughter at Mount Vernon, N. Y., by long-distance telephone. No matter where they happen to be, the "Good-night" always goes over the wires to Mount Vernon.



West Penn Pharmacy, Connellsville, Pa.
Uniontown District

In a recent issue of a suburban newspaper there were the advertisements of 69 business enterprises. Of this number, 58 mentioned the fact that they had Bell Telephone service, and two of the "ads" contained the phrases "Both Telephones."

Uniontown District

The Brownsville-Uniontown toll line met with two mishaps February 20: About 10.30 A. M. a farmer cut down a tree which fell on the line, breaking every one of the fifty wires. This break was repaired at two o'clock, and the repair crew started for Uniontown. On their way in they found the lead broken down at another point, and five feet cut out of a thirty-foot rural line pole. This was caused by a man losing control of his automobile, which skidded across the road into the pole.

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Our Societies (See also page 9)

Northern Pennsylvania Telephone Society

This society held its regular meeting Friday evening, February 21, at Irem Temple, 48-58 N. Franklin Street, Wilkes-Barre, Pa.

Mr. W. R. Driver, General Superintendent of Traffic, read an enthusiastic and helpful paper on "Routine Work and Individuality."

The attendance was the largest in the four years' history of the telephone society. It was also the first meeting attended by the women employees of the Company in the Wilkes-Barre and Scranton Districts. The attendance numbered nearly 300, and more than one-half were women. This new venture was a decided success.

After the principal address comments were

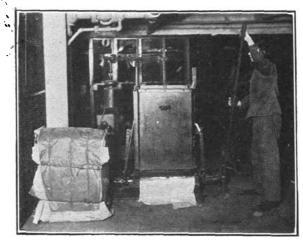
made by the following men:
G. S. Reinoehl, Division Manager, Harrisburg; F. C. Moody, Plant Superintendent, Harrisburg; S. E. Gill, Traffic Superintendent, Harrisburg; W. D. Gay, Secretary and General Manager of the Commonwealth Telephone Company, Center-moreland, Pa.; L. M. Smith, District Traffic Chief, New York Telephone Company, Elmira, N. Y.; H. J. Barber, District Traffic Chief, A. T. & T. Co., Harrisburg; E. G. Simons, District Manager, Scranton; C. F. Brisbin, District Manager, ager, Wilkes-Barre; and H. L. Badger, District Plant Superintendent, Scranton.

The next meeting of this society will be held in the Chamber of Commerce Hall, Wilkes-Barre, Friday, March 21. The speaker will be Mr. N. Hayward, Engineer, who will speak on "The Telephone in the Wyoming Valley."

The Philadelphia Telephone Society

At the regular monthly meeting held March 3, Mr. E. K. Hall, Vice-President, New England Telephone and Telegraph Company, presented a paper of wide interest to all telephone people. The subject, "Public Opinion," was discussed in a way that showed the speaker's familiarity with telephone problems met by the average employee. He impressed his hearers with the great importance of individual responsibility in dealing with the public. It is hoped that the paper will appear in THE TELEPHONE NEWS.

The speaker was introduced by J. M. Repplier, Division Manager Atlantic Coast. Those who commented were Messrs. Hayward, Thurber, Clarkson and Crosman. Mr. Hayward emphasized the aggressive part which we must take in effecting favorable public opinion of our business. Mr. Thurber spoke of the clearness of the speaker's constructive dealing, and characterized it as a very remarkable treatment of the subject.



Steel Hand Press Installed at 1230 Arch Street. Philadelphia, for Baling Waste Paper

Mr. Clarkson mentioned the rapid changes of public opinion in the Pittsburgh Division as well as in the rest of the eastern part of the country, and urged our thoughtful appreciation of the importance of it all. Mr. Crosman impressed the need for specific application among the 800 or more men present of the speaker's well-put generalizations.

The orchestra and chorus, which made such hits in the former meeting, received no less appreciative demonstrations of their efforts on March 3. They each rendered one selection and an encore before the address of the evening as well as after the comments had been given. The chorus had the same number as at the previous meeting, but the orchestra lacked two prominent members who had gone to Washington, D. C. The chorus now practices between 5.30 and 6.30 each Monday in the 2nd floor restroom at 1230 Arch Street. There, a piano has been placed at the disposal of the chorus and orchestra. The latter men practice in the same place at the same hour on Fridays. Seventy men became members at the March meeting of the society.

The Transposition Club

The next meeting of the Transposition Club will be held in Hotel Henry, Pittsburgh, Pa., March 20. The speaker, G. E. Lawlor, District Manager (Wheeling), has not announced his subject.

The I O U Telephone Society

A meeting of the I.O.U. Telephone Society was held in the Pittsburgh Plant School on February 18. About 125 were present and the meeting

was thought to be the best of the year. Messrs. H. Hauff, A. P. Beattie, H. A. Gavin and C. Wilson discussed sub-station installations.

The Spare Pair Society

6A Parkway Building, Broad and Cherry Streets. Philadelphia.

Thursday evening, March 20.
Speakers A. J. Egan, Cable Department, Phil adelphia.

Subject: "Centralized Testing of Cable Trouble."

The discussion will be led by M. L. Lafferty and J. A. Joyner.

[This paper covers a subject of wide interest. inasmuch as the apparatus to be installed-under the estimate recently approved-will be described.]

The Diamond State Telephone Society

601 Shipley Street, Wilmington, Del. Thursday evening March 20. Speaker: J. M. Repplier, Division Manager Atlantic Coast.

The Telephone Society of Harrisburg

The next meeting will be held in the Board of Trade Building, Harrisburg, Monday evening. March 17.

Speaker: G. K. Heyer, Railway Sales Engineer, Western Electric Company, New York. Subject: "Telephone Train Dispatching."

The annual election of officers will be held at this meeting and a large attendance is anticipated.

Camden Telephone Society

Goff Building, 23 Broadway. Traffic Engineer, Philadelphia, D. & A. and Eastern Pennsylvania Divisions.

Subject: "Traffic Engineering."

The Trenton Plant Club

At the March 13 meeting Mr. A. B. Marston. Equipment Engineer, read a paper on "Central Office Equipment."

The Telephone Society of Baltimore

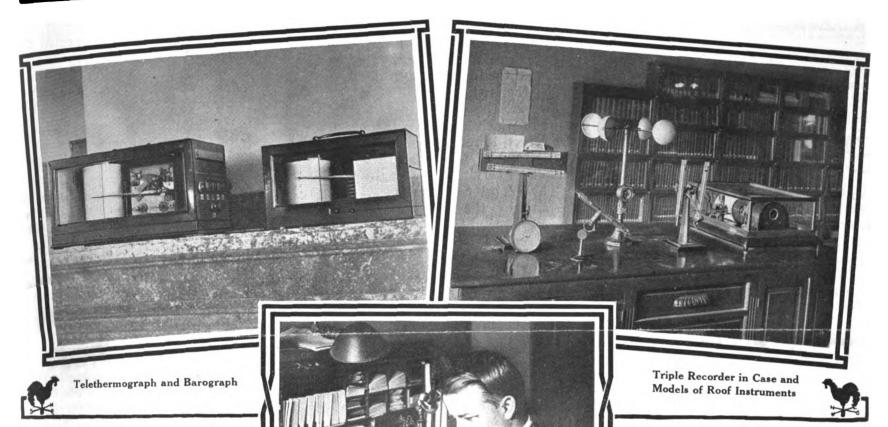
Cathedral and Saratoga Streets. Wednesday, March 12, 8 P.M. Speaker: Mr. T. P. Sylvan, Secretary of the Employees' Benefit Fund Committee. Subject: "The Pension Plan."



A Telephone Society Meeting in Our Territory Attended Largely by Women Employees, Wilkes-Barre, February 21 (See column 1)

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Weather Bureau and Telephones*

By George S. Bliss, Section Director, United States Weather Bureau

HE meteorological service of the United States was started fortythree years ago under the supervision of the Signal Corps of the Army Department, and was designed primarily for the purpose of giving notice by telegraph on the Great Lakes and along the seacoast of the advance of severe storms.

The Smithsonian Institution had been making rather incomplete weather maps for several years from observations voluntarily furnished by the telegraph company. No information or forecasts had been furnished to the public from these maps, but a study of them had demonstrated the practicability of watching storm movements and developments by mapping them at frequent intervals, and of giving out telegraphic notice ahead of them.

Up to that time no country in the world had attempted a meteorological service of so large a scope as was comprehended in the daily mapping of the weather conditions over so large a territory. The losses to maritime interests during the passage of a severe storm, unheralded, were

something appalling.

*Article written especially for THE TELEPHONE NEWS. (Continued on page 5)

Mr. Bliss Preparing a Forecast

Your Share of the Transmission Job*

By E. B. Tuttle, Assistant Engineer, Philadelphia

AM addressing my talk to-night particularly to the employees of the Company who are in the Plant department. This is not because the engineers have no share in the transmission job, but because I think I have a message to deliver which is of value particularly to the man who makes the detail plans and constructs and operates the transmission system we call the telephone plant. It is, therefore, to the share of the transmis-

*Presented before The Spare Pair Society, Philadelphia.

(Continued on page 10)

The Du Pont

Wilmington's Million-Dollar Hotel

ILMINGTON may well be proud of its newest hotel, The Du Pont. A million-dollar hotel in a city of 100,000 inhabitants, especially when that city is within forty minutes' ride of a metropolis as large as Philadelphia, is unusual. And The Du Pont is unusual in many respects. The building itself, of which the hotel occupies half and the general offices

of the Powder Company half, is twelve stories high and occupies an entire block surrounded by Tenth, Eleventh, Market and Shipley Streets. The first three stories are of Indiana limestone, as is also the twelfth. Those between, from the fourth to the eleventh inclusive, are of buff faced brick with terra-cotta trimmings and balconies. Large semi-circular head windows. running up through two floors, admit light to the main dining room, the entrance lobby and the salon. Over these windows a balcony is carried across the entire front of the building. The front as a whole is characterized and enhanced by its simplicity.

The main entrance to the hotel is on Eleventh Street. Above it hangs a huge marquée, of ornamental iron and glass, weighing several tons.

(Continued on page 12)

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THE TELEPHONE NEWS

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania The Central District & Printing Telegraph Company The Delaware & Atlantic Telegraph & Telephone Co. The Diamond State Telephone Company

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FORD HUNTINGTON, Vice-President
L. H. KINNARD, Second Vice-President and General Manager
W. S. PEIRSOL, See'y and Treas.
J. S. WILEY. General Auditor
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Managing Editor, E. H. HAVENS, 17th and Filbert Streets, Philadelphia, to whom all communications should be addressed

SUBSCRIPTION PRICE:

To employees of the above Companies
To employees of OTHER BELL COMPANIES,
payable in advance

NO CHARGE \$1.50 per annum

Vol. IX

APRIL 1, 1913

No. 7

Budding Bugaboos

EVERY day we meet some people who are dissatisfied with the way the railroad, mail, express, telegraph or telephone service is being conducted. Usually the critics have little or nothing to say of a constructive nature. It sounds like "Poorest service ever," or "Entirely unbusinesslike," or "Such a method!"

At these very times—always when there are genuine or apparent causes for complaint—the patrons should state their experiences to the proper persons, either personally, by telephone or by letter. All of the above services have employees whose duty it is to investigate the causes and to take such action as will prevent their recurrence.

Very familiar and no less sincere is the sign, "If our work pleases, tell others; if not, tell us." Generally speaking, attempts at criticism are breeders of bugaboos which gain with each repetition—if not in statements at least in importance in the minds of those who hear of them.

At the very time of the first recital of such an experience, where it concerns the telephone service, it will pay us in satisfaction if not in other ways to be prepared and willing to state what we know of conditions that may have caused the failing mentioned. That is the time when our brief comments are worth a great deal to the Company. They are one form of positive advertising that becomes impressive because it will be listened to and recalled should similar occasions arise. The psychological moment for handling just such situations as this is when the experiences are mentioned.

This procedure need not involve plunging into a description of the practices of departments other than our own, nor should it ever tend toward an apologetic strain. Where errors are apparent, they may be better handled by those most closely responsible. They know the conditions and are best qualified to mention actual or probable causes. Sometimes such information as we can give is sufficient to ward off further comments as well as incorrect conclusions from the minds of the hearers.

Be loyal and explode the "budding bugaboos."

More Heroines in the Omaha Disaster

on us all the high grade of employee that is characteristic of Universal Service. However, the Omaha catastrophe, with news of which the papers have been filled, has served to recall once more what a devoted type of women is furnishing Bell telephone service to our patrons.

The Webster central office building, in a part of the devastated district, at Twenty-second and Lake Streets, Omaha, was directly in the tornado's path. Every window was reported broken and other damage was done to the building. The switchboards were still in service; and not remarkable—for it has become characteristic—but none the less heroic, the whole force of operators remained on duty. Anxious as they must have been to learn that their relatives were safe, and with glass being showered about them, they ected more like soldiers than members of the so-called weaker sex. Their own safety they did not consider. Even when a part of the building was converted into a temporary hospital to receive outside victims of the tornado, the operators were undisturbed.

Of course the linemen and other employees were, as usual, on duty promptly; but the fact that 176 women on duty when the frightful storm came, and 176 remained so, in this city of devastation, until relieved by their associates, shows what a wonderful organization is behind this Bell System with One Policy and Universal Service.

One Firm's Surprise

THERE came to our notice the other day a rather startling discovery made by a large manufacturing firm. Perhaps the thought—not the physical example—may be worth something to us.

That firm had occasion to use power in wholesale quantities. It had utilized shafting and belting in the transmission of power until a short time ago, when electricity was substituted. When it came to the application of electricity to elevator work, there was a surprise in store in that the elevator would not rise.

Experts were summoned and it required about five minutes and as many questions to reveal the fact that the elevator had never had counterbalance weights! In other words, from the starting of those elevators—over thirty years before—until then, the dead weight of the elevator had been lifted at every trip! The same condition applied to another elevator in the plant.

The amount of energy wasted during all this time would have . . . well, what would the same kind of investigation do in our jobs?

Look into the dead weights before the "expert" arrives.

Air and Work

HAT is everyone's business is no one's business, applies to the proper ventilation of an office or workroom as surely as it does to that of the home.

One of our employees, who has visited many of the Company's offices in all parts of our present large territory, said a few days ago that there is too little attention paid to the subject of office ventilation. He suggested as a remedy that the person in charge of each office delegate someone whose regular duty it should be to see that the windows and doors be opened widely—perhaps during luncheon hour if the practice at other times seemed unwelcome. In this way every worker could receive his or her share of the life-giving ozone that is each one's natural right.

No good work may be done unless the brain be in good condition; the brain's state depends upon blood circulation, which in turn is contingent upon good air. In the morning or after the noon period the efficiency of inside workers is recognized to be higher than after the room has become filled with impure air. The loss in efficiency is so gradual that it is seldom realized.

In those offices where there is a full appreciation of the need for a continual circulation of air, the fact is reflected in numerous ways. Letters to other employees and to subscribers are more clearly worded, more definite in phrase-ology, and more satisfactory in every way. The employees are more comfortable, are in better health, and their work shows that fact.

The thought is here stated for the other employees who have not had the opportunity to read and digest Dr. Doty's comprehensive article on the subject in the March 15 issue of our paper.





John A. Wood

At Steubenville, Ohio, on March 11, occurred the death of John A. Wood, a well-known agent of the Pittsburgh Rights-of-Way Division. At the time of his death he was engaged in securing a predification of the general ordinance which aftects the operations of The Central District & Printing Telegraph Company in Toronto, Ohio. Mr. Wood was ascending to the second story of a building in Steubenville, Ohio, which, unknown to him, had been vacated a short time before. The upper stairs and hallway were dark. He, it is presumed, missed a step and fell headlong to the first floor, striking his head on a stone step in the doorway. He was rendered unconscious and taken immediately to the Steubenville City Hospital. This happened about 1 P.M., and only for a short time did he regain consciousness,-about an hour later when he rallied partially, but soon lepsed into an unconscious state in which he remained until his death, about 9.30 that evening. Mr. Wood was a resident of McKeesport, Pa.,

where he had lived for a number of years. When a Bell telephone exchange was first installed in McKeesport, he, then engaged in mercantile business, became the Company's first agent. The switchboard was located in his place of business. A year or so later, owing to the increased demand for telephone service, the Telephone Company found it necessary to rent quarters and open a regular exchange, which it did, thereby releasing Mr. Wood.

He became a Rights-of-Way assistant in the C. D. & P. in 1895, and with the exception of a period when he was employed as a furniture salesman by Edmundson & Perrine, of Pittsburgh, he continued in the employ of the Bell System until his death.

His first accomplishment of importance to the Telephone Company was securing the enactment of an underground ordinance in the city of McKeesport, about twelve years ago. This took place at a time during which a local competing company composed of local capitalists was in the act of constructing a telephone plant and offering its service at a much less rate than charged by The Central District & Printing Telegraph Company for similar service.

As a result of this local influence it was an exceedingly difficult matter to have Councils consider favorably any proposal of the Bell System.

Mr. Wood's ability to clearly and forcibly present his case, together with his personal acquaintanceship in that city, brought about the desired results.

During the last ten years of his life his work was confined principally to the adjustment of rights-of-way claims of unusual importance. However, much of his time during the last two years was devoted to securing franchises. Probably the most important of these he obtained about a

year ago covering underground plant in Johnstown.

Mr. Wood was well known and was highly respected by all who knew him. He made friends quickly, due largely to his pleasing personality. He was well informed generally and his ability as a conversationalist rendered him an excellent entertainer.

His acquaintance among employees of the "C. D. & P." was broad and he was widely known by municipal officials throughout the entire territory which he covered.

A Telephone Game

My little girl has invented what to me seems an ideal child's game, writes a mother in the Ladies' Home Journal. She calls it "The Telephone Game," and it can be played when I am busy with my mending and sewing. However, I can see how later a paper and pencil will add to its educational value in making figures, and, in time, in writing. We simply call to each other from room to room or use the same room when it is more convenient.

First I am the lady and she is the store, then she is the lady and I am the store. When I am the lady, and ordering, I ask the price of each article, and correct her when she gives prices ridiculously high or low, telling her what they ought to be. In fact I ask all sorts of questions as to my purchases, and she is rapidly getting an idea of the current prices of foods and clothing.

When she calls me up I insist upon her speaking just as she would in a real telephone. She must ask first if she has the number she has called for, then give promptly her own name and address. Then she says she would like to have me "charge and send the following order," or send it C. O. D., as the case may be. Then she gives her order.

I ask, for example, how many yards she wants in each tablecloth; if the napkins must match; and how many pieces she wants in the new china set she is ordering; and I explain the differences. Sometimes we have "trouble" on the wire, and purposely I get her into all sorts of imaginary tight places, to see how she can get herself out of them.

We use the different departments of the store until we have furnished the house, and sometimes this runs on for days. Then we supply the kitchen and pantry, while later we buy clothing and occasionally presents, always being careful to keep our prices in imaginary buying down to what we can really afford, and lower. The times are such that this is not a bad idea in itself. She is fast learning the intelligent and polite use of the telephone as well as how to take care of herself in an emergency.

Emergency Telephones

Special Railroad Equipment for Pennsylvania Railroad

It is stated that the entire main line of the Pennsylvania Railroad between New York and Pittsburgh will be equipped with emergency telephones. Every half mile, or as near to those locations as possible, a telephone will be installed for train, patrol, section and other employees to use in reporting accidents and anything else of immediate interest to the officials.



A. Douglas Merrick

A. Douglas Merrick, Traffic Supervisor, Trenton and Burlington Districts in New Jersey and Lansdale District in Pennsylvania, died March 19 of complications resulting from typhoid fever. For several months Mr. Merrick had not been

For several months Mr. Merrick had not been in good health but thought he had a slight attack of grippe. On March 1 he went home ill and a week later his illness was diagnosed as typhoid fever. On March 16 complications developed and Mr. Merrick was removed to the Mercer Hospital. There hopes for his recovery were maintained until the morning of his death.

Mr. Merrick was born October 15, 1878, at Upper Lehigh, Luzerne County, Pa. His early schooling was received at Pottstown, where his parents still live. In 1897 he was graduated with honors from the public schools, and four years later Mr. Merrick received the degree of A.B. from Princeton University.

Mr. Merrick entered the Company's employ less than two months after graduation from college (July 25, 1901), as a Traffic Inspector in Philadelphia. On March 1, 1904, he was advanced to Traffic Manager of the Trenton (N. J.) city exchange. On February 22, 1908, he was transferred to Atlantic City as Traffic Manager of the Atlantic and Bridgeton Districts. In 1909 he returned to Philadelphia as Traffic Manager of the Tioga and Germantown Districts, and on November 14, 1910, was placed in charge of the Trenton, Lansdale and Burlington Districts of the Eastern Pennsylvania Division.

In 1904 Mr. Merrick married Miss Laura J. Miller of Wilmington, Del. His wife and one child, Elizabeth Douglas Merrick, survive him.

As a Traffic employee, Mr. Merrick's increased responsibilities showed his fitness. To his marked popularity both in and out of the Company there are numerous friends and associates to testify. He was a member of the Trenton Country Club and of several other organizations of both his college and later life.

New Holly Oak, Del., Office (See page 19, column 1)

February 17 marked the beginning of a new era for the residents of Hillcrest, Gordon Heights, Bellevue, Holly Oak and Claymont, Del., in the matter of telephone service. Formerly 188 subscribers in this territory were served directly by the Wilmington central office on multiparty service, for which 47 lines were used. Now there are 119 lines used, and the Holly Oak exchange was opened with a gain of 26 subscribers. Standard rate Holly Oak and Wilmington subscribers are in the same service area.

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Weather Bureau Instrument Shelter Taking the Reading

Selling Telephone Directory Advertising

By W. E. Barnes and H. N. Rounsefell, Directory Advertising Salesmen, Philadelphia

HE selling of telephone directory advertising presents many problems peculiar to itself, and yet its underlying principles are the same as those which govern the sale of any commodity.

The wholesale grocer, for example, as all merchants save those who sell for cash, will not open accounts indiscriminately but makes inquiries concerning the financial standing of those from whom he expects to canvass for orders.

And so it is in selling telephone directory advertising. The salesman can only attain to the highest degree of efficiency if he reduces to a minimum the time wasted in canvassing worthless prospects.

To this end the local Commercial representative of the Company may benefit materially. The Local Manager or Cashier can furnish offhand the financial responsibility of a large number of the subscribers. The standing of others he can readily obtain from the stubs or other office records. And, remember, he is always glad to work with and aid the salesman by all means at his command.

The method which has been used by us, and which has proved not only practical but successful to a considerable degree, is as follows:

The telephone directory is the chief source of prospects. It should be gone over page by page and the names and addresses of all business subscribers to whom it is believed directory advertising will appeal written down. This makes a tentative or working list of prospects.

When the tentative list of prospects prepared by the salesman has been gone over by the District Manager, certain names have been "blue-penciled" because of poor credit or other reasons. The salesman now has a list of *live* prospects on which he can go to work, feeling that, whatever the immediate results, he at least is not wasting time and energy.

Having settled the question of credit there yet remains considerable to be done before the actual work of canvassing the subscriber begins. Experience and study of existing directories will show that some classes of trade are better prospects for space and prospects for more space than others; that men in certain lines_of industry regard their telephone service of more importance in securing business than men in other lines, and consequently believe that they are justified in spending more money in advertising their goods or service directly to telephone subscribers in the telephone directory.

The live prospects should then be classified, according to the amount of space they will probably buy, into four or five rather arbitrary classes. For instance, coal dealers might be put in the "A" class as being among the best prospects, liverymen in the "B" class, grorers in the "C" class, and architects in the "D" class as being among the least hopeful—but not hopeless—class of prospects.

This classification having been accomplished, suggestions as to the copy which will be suitable for each prospective advertiser should be worked out in advance. Nothing is more valuable in securing a "display" contract than that of being able to give the prospect a fairly definite idea of what his advertisement will look like when printed. A little practice in lettering by hand will make this work very easy and conclusive.

One more thing remains to be done before approaching the prospect in person. A rough schedule should be made up according to the street addresses of the various places of business. For the sake of convenience, the schedules of the different classes may be made up separately, but these should always be compared afterward so that there may be no danger of covering the same ground twice, and the final working schedule made up from the best combination of the sched-

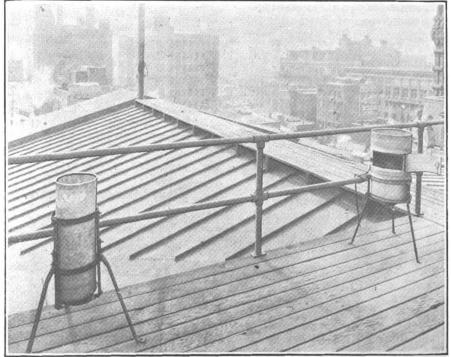


Chalk-plate Map Ready for Casting

ules of the various classes. Appointments should always be made by telephone so that the least possible time will be wasted in trying to see men who are either not likely to be in or are otherwise engaged.

The actual selling of the space comes next, and while it, of course, is the real test of the salesman's ability, selling arguments and methods will not be treated here.

A word might be said as to the value of filling out applications clearly and carefully and, also, as to the great importance of having a thorough understanding, at the time the contract is signed, of the copy to be used. These are rather obvious points of desirability, however, and should need little emphasis. The main thought is that an ounce of planning is worth a pound of talk.



Bureau
Snow-Gauge
at Left
Rain-Gauge
with Tipping

Bucket at

Right

Weather

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"Pouring" the Weather Bureau Map

New Directors

Mr. F. O. Briggs, of Trenton, N. J., has been elected a Director of The Bell Telephone Company of Pennsylvania, to succeed Mr. P. L. Spalding, now President of the New England Telephone & Telegraph Company. The election was on February 19, at the annual meeting of the Board of Directors.

Mr. R. M. Elliott, of Philadelphia, succeeded Mr. Spalding as Director at the annual meeting of the C. D. & P. Telegraph Company at Pittsburgh, February 13. Mr. Elliott is also a Director of The Bell Telephone Company of Pennsylvania.

New Main Line Calling Areas

In the territory west of Philadelphia, or what is known as the (Pennsylvania) Main Line, a change affecting the toll rates in this section became effective March 1.

Standard rate subscribers in seven exchanges are being allowed service without toll to all stations except toll stations in the enlarged areas named below. This does not affect public telephone users nor those whose rates are not standard.

Ardmore standard rate subscribers may now talk without toll to Cynwyd, Bryn Mawr and Narberth; Berwyn subscribers to Devon; Bryn Mawr subscribers to Ardmore and Wayne; Cynwyd subscribers to Ardmore and Narberth; Devon subscribers to Berwyn and Wayne; Narberth subscribers to Ardmore and Cynwyd;

Wayne subscribers to Bryn Mawr and Devon. In each italicized town it is of course understood that service within that exchange area is included.

Making an Impression

Bob Dwyer, fresh from college, opened a real estate office in an attractive suburban neighborhood, says Harper's Weckly, and hoped to make his fortune. For days he sat undisturbed in his little office, staring out at the dusty roads or twiddling his thumbs. On the afternoon of the fourth day he saw a man crossing Ogden Boulevard diagonally, headed for his door. Surely this was a customer. He must be made to feel that business was flourishing.

As the man stepped over the threshold, Bob had the telephone receiver at his ear and was talking earnestly into the transmitter.

"That's correct," he said as the man stood before him. "Right. We will accept your \$15,000 cash to-morrow and let the \$30,000 remainder stand on a ten-year mortgage. What? Yes. I'll bring the deed around at 11 to-morrow morning. Good-bye."

Bob hung up the receiver and turned an im-

portant visage to the visitor.

"Now, sir," he said, "what can I do for you?"

"Why, I just came over," said the man, grinning, "to connect up your telephone."

What's a "Hoosit"?

A New Castle subscriber who employs a Swedish maid overheard the following conversation between her maid and the maid next door, also a Swede:

"How are you, Hilda?"

"I well I like my yob. We got cremated cellar, cemetery plumbing, elastic lights—and a hoosit."

"What's a hoosit, Hilda?"

"Oh, a bell rings. You put a thing to your ear and say 'Hello,' and someone says 'Hello' and you say 'hoosit.'"

Weather Bureau and Telephones

(Continued from page 1)

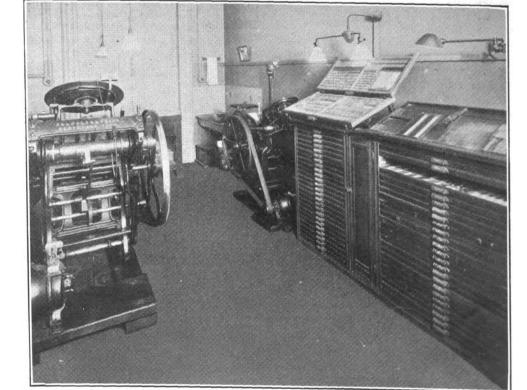
The new storm-warning service soon began to demonstrate its possibilities, and a little more than two years after its inauguration a river service was organized for the purpose of telegraphing warnings in advance of floods in our principal streams, and this work was added to the storm-warning service under the Signal Corps of the Army.

The commercial and agricultural interests of the country soon began to realize that the same system that could give warnings ahead of severe storms might be utilized in disseminating warnings of cold waves in winter and possibly of damaging frosts in spring and autumn. Gradually all these additional services were incorporated. Regular forecasts, when first adopted, were issued three times daily and were known as "probabilities." They were made to cover states or groups of states, and they covered only such periods of time as seemed warranted by the conditions.

On July 1, 1891, the meteorological service, with all its varied duties, was transferred from the Signal Corps to the then comparatively new Department of Agriculture, and was made the ranking Bureau of the Department.

The great benefits that might be derived from the forecasts by the agricultural interests were apparent, but inasmuch as reliable forecasts could be made only for thirty-six to forty-eight hours in advance, the problem of reaching the farming communities with the information in time to be of benefit was a serious one. The rural free delivery had not yet been organized, and the mail service in the agricultural districts could be utilized to reach only a small percentage of the farmers. Some extension was made by the display of flags from advantageous points.

The solution of the problem is being worked out in recent years by the rapid extension of the rural telephone. The free dissemination of the weather forecasts by the telephone companies has proved to be a strong inducement for the in-



Weather
Bureau
Printing
Plant









stallation of telephones in the agricultural districts. The forecasts are telegraphed daily at government expense to an average of fifty or sixty central telephone exchanges in each state. From the central exchanges they are quickly given to the smaller distributing points, and from thence they spread over the rural lines very rapidly.

To better understand the efficiency with which this work is conducted let it be explained that simultaneous observations are made daily at 8 A. M. at something over 200 stations in the United States and Canada. These observations are telegraphed to Washington and to map-making stations in the larger cities where forecasters are located. The conditions as observed at each station are entered at their proper places on a base map as fast as the messages are received.

The forecasters then proceed to outline the storm areas and, by comparison with previous maps, to ascertain their direction and rate of movement, as well as their increase or decrease in size or energy. By 10 A. M. the maps are completed, the forecasts are made and given to the telegraph and telephone companies for distribution. One hour later, or only three hours after the observations were taken, the forecasts are available to the most remote rural telephone.

Two things make such rapid work possible, namely, a government meteorological service unequaled in scope and organization by that of any other country in the world, and a telegraph and telephone system that is a marvel of efficiency.

In Europe the area mapped by each country is comparatively insignificant, and the forecasts are consequently much less accurate than in the United States. In our country a verification by the actual records has shown an average of about 85 per cent. of successful forecasts each year for the last ten or twelve years. This average is based on the results through all seasons of the vear and for all parts of the country.

Some localities bear such a relation to the average storm tracks that they lie near the edge of a large number of storm areas during their passage, thus making the matter of forecasts extremely difficult at times. The average of success for such places may scarcely reach 80 per cent., while for other more favored districts it may run above 90 per cent.

The weather conditions affect not only the agriculturist but practically all lines of human endeavor. It is not many years since business in the big shipping centers was conducted without regard to weather conditions, and the losses were accepted as matters of course and were considered unavoidable. Oftentimes large shipments of perishable produce were sent out in this hit-

or-miss manner only to meet with a cold wave and prove a total loss.

Modern shippers study the weather reports carefully and govern their shipments according to the best information and advice obtainable. The result is that instead of losing from 10 to 15 per cent. of all the produce handled during the winter season their losses are now comparatively insignificant. If a dealer needs to make a shipment early in the day, he is not compelled to wait for his mail delivery of the weather reports, but

goes to his telephone, calls up the local office of the Weather Bureau, and ascertains the conditions and prospective conditions for the route over which the shipment will pass.

The millions of dollars thus saved annually are not merely for the benefit of the dealer, but are passed along to the consumer by increasing the available supply and thus reducing the com-

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU WILLIS L. MOORE, Chief.

PHILADELPHIA, PA.

Wednesday, February 19, 1913.

SHIPPERS CARD.

LOWEST TEMPERATURE LAST NIGHT.

| New York, N. Y 22° |
|------------------------------|
| MCM TOTE, THE T |
| Hartford, Conn16° |
| Boston, Mass16° |
| South along Coast. |
| Atlantic City, N. J24° |
| Baltimore, Md32° |
| Washington, D. C26° |
| estera points as indicators. |
| Des Moines, Iowa36° |
| St. Paul, Minn82° |
| Bismarck, N. D12° |
| |

ADVICE.

SHIPMENTS THAT WILL REACH THEIR DESTINATION IN 36 HOURS SHOULD BE PREPARED TO WITHSTAND TEMPERATURES AS FOLLOWS:—

| AS FOLLOWS:— | |
|----------------------------------|------------|
| Northerly points | 30° to 35° |
| Westerly points | 30° to 35° |
| Northeast along the coast | 35" bo 40° |
| South along the coast | 35° to 40° |
| Lowest for Philadelphia to-night | 40° |

GEORGE S. BLISS,

Shippers' Card Mailed Daily by Weather Bureau to Shippers Requesting It

parative cost. So much for our modern institutions, the Weather Bureau, the telegraph and the telephone.

Geo S. Wlise;

Penna. Climatological Service, U.S. Weather Bureau.











100.0

A. T. Q T. Company's Report

Summary for 1912

HE report just issued by the American Telephone & Telegraph Company for the year ending December 31, 1912, shows that the telephone has become in the United States, to a greater extent than anywhere else in the world, a household necessity. There are now 70,000 towns, cities and hamlets from which telephone messages may be sent. This is 5000 more than the number of post offices in the United States; 10,000 more than the number of railroad stations, and nearly three times the number of regular telegraph offices. There are altogether 7.456,074 telephone stations in the Bell System. which is an increase over last year of 823,449 stations. This compares with an increase during the previous year of 749,906 stations.

Including the traffic over the long-distance lines, but not including the connecting companies, the daily average of toll connections in 1912 was about 738,000, and of exchange connections about 25,572,000. This compares with 645,000 and 23,484,000 in 1911. Speaking broadly, this means that the daily average of telephone conversations last year reached 26,310,000, or at the rate of about 8,472,000,000 for the year, as against 24,129,000 in 1911 when the rate was 7,770.

000,000 a year.

Theodore N. Vail, President of the Company, gives some highly interesting statistics, comparing the telephone traffic in the United States and Europe with the operations of the mail and telegraph services. Taking the last available figures, those for the year 1911, the records may be thus summarized:

These figures show that while Europe has three and a half times the telegraph traffic of the United States and nearly twice the first-class mail traffic, it has only two-fifths of the telephone traffic, owing to the greater efficiency and distribution of

Telephone Conversations14,400,000,000

Total24,208,000,000

the telephone in this country.

The Bell System showed a gross revenue—not including that of the connected independent lines—of \$199,200,000. This was a gain of \$20,000,000 over the previous year. A very careful appraisal conducted by the Engineers of the physical property of the Bell System as of August 1 last showed that while the book cost was \$736,000,000, the cost of reproduction at that date would have

been \$797,000,000. In other words, the Company was carrying the property on its books at \$61,000,-000 below its actual physical value at the time of its appraisal. In this appraisal there were included no intangible assets whatever, such as goodwill, patents, franchises, cost of developing the business, etc. For the year there was an increase in assets of \$92,300,000, of which \$75,-600,000 represented current additions to the plant, including the necessary real estate. During the five-year period between 1907 and 1912 the assets of the Bell Companies have increased \$311,000,000, while the capital obligations and payables outstanding have increased only a little over \$199,000,000. The surplus and reserves have increased from \$61,300,000 to \$164,200,000, or nearly \$103,000,000, even after setting aside \$8,845,000 for the Benefit Fund recently created for the employees.

The American Telephone & Telegraph Company itself shows total earnings of \$42,717,992.75, and a balance of \$6,047,357.64 after payment of interest and the regular dividends of 8 per cent. per annum. At the close of the year its outstanding capital stock was \$334,805,700, and bonds \$105,002,000. For the capital stock outstanding there has been paid into the Company's treasury \$356,732,218, or nearly \$22,000,000 more

than the par value of the stock.

Scarcely any corporation in the United States has its capital stock more widely distributed than the American Telephone & Telegraph Company. A majority of the shares are held by women and less than 7 per cent. is held in the name of brokerage houses. The average number of shares held by each stockholder at the close of 1912 was shown to be 66.

The number of shareholders on the books of the American Telephone & Telegraph Company at the close of the last year was 50,297, which indicates an increase for the year of 2956. The following extremely interesting table shows just how the stock of the Company is distributed and the number of shares held by both large and small holders:

43,553 held less than 100 shares each;

6354 held from 100 to 1000 shares each;

356 held from 1000 to 5000 shares each; 19 held 5000 shares or more each (omitting brokers and holders of investment trusts, etc.)

Of the holders of less than 100 shares each, 9450 held 5 shares or less each; 31,953 held 25 shares or less each.

The report tells of the new plan announced January 1 last for Employees' Pensions, Disability Benefits and Insurance adopted by the American Telephone & Telegraph Company, by its Associated Companies, by the Western Union Telegraph Company and by the Western Electric Company. For the purpose of inaugurating these benefits the American Telephone & Telegraph Company made an initial appropriation of \$2,000-000. There are about 200,000 employees—men and women—in the service of the Companies concerned who will be directly or indirectly affected by this provision. The plan has been elaborately worked out and will, it is believed, result in the increased happiness and betterment of employees.

The Company has worked hard to secure the long-planned ocean-to-ocean service. On this

point President Vail says:

"Experience with the engineering devices and methods employed in the New York-Denver Line having demonstrated their value under severe practical conditions, a systematic introduction of these improvements was undertaken and actively prosecuted throughout the United States, so that at the end of 1912 there was a total of 54,750 miles of the heaviest gauge wires equipped with

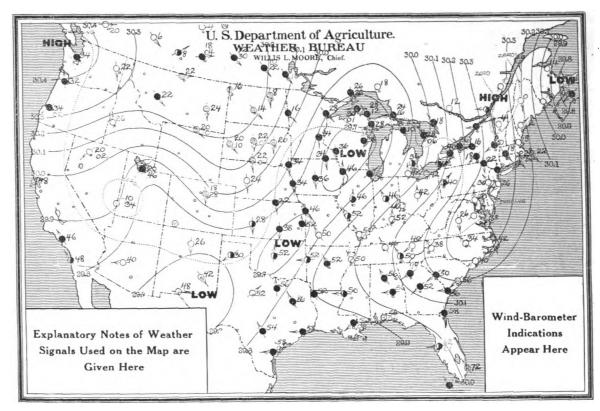
the new arrangement, thus doubling their transmission efficiency; and in addition to this there were obtained, without any expenditure for new wires, phantom circuits equivalent to 12,600 miles of the heaviest gauge circuit. These improvements have brought into communication with each other places formerly too remote, and between a great number of places less remote noteworthy improvements in the service have been reported.

"Engineering plans have been completed for the extension of four heavy copper wires from Denver to San Francisco, and construction work is to commence as soon as the weather permits."

In thirty-three different states there are public service and other state commissions which supervise the telephone service. This supervision is vious reports is about complete, and the division of the work is so clearly drawn and so closely correlated between the local administration of the Associated Companies and the central general administration of the American Telephone & Telegraph Company that there is no duplication of effort or conflict in administration."

Bell "Army" Efficiency

On February 20 at 11 P.M. the building occupied by the Main Belting Company, 1241 Carpenter Street, Philadelphia, was discovered to be on fire. Notice was at once sent to our Dickinson Night Wire Chief and a troubleman was



Typical Weather Map Sent Broadcast by Mail

entirely distinct from the supervision of the Interstate Commerce Commission. The report contains the interesting letter addressed by Attorney-General Wickersham to the Chairman of the Interstate Commerce Commission at Washington touching the activities of the Company, and also the order made by the Interstate Commerce Commission as of January 13 last directing that a thorough investigation be made "concerning the history, the financial operations, the rates, rules, regulations and practices of telephone and telegraph companies subject to the Act to Regulate Commerce, with a view to the making of a comprehensive report and to the issuance of such order, or orders, as may be necessary to correct such discriminations and make applicable reasonable rates and practices." The policy of the Company, as in the past, will be to cooperate with the examiners conducting this investigation and to aid public officials in every possible way in their effort to ascertain the real facts respecting the telephone service of the United States.

President Vail says in conclusion:

"As to the future of the Company, it was never brighter. Business indications are normal, and our relations with the public and with the public authorities are on a mutually satisfactory basis.

"The organization on the lines set forth in pre-

sent out. The condition of the building and location of our stations made it impossible for him to do anything there, so he opened the line at the pole. On the next morning a troubleman, who then came on duty, found that the only damage done to our equipment was that of wetting the inside wiring. He removed the cleats, separated the wires and closed the line at the pole, thus restoring service immmediately.

The nature of the subscriber's business makes continuous telephone service imperative. This appreciative letter followed:

Main Belting Company, Philadelphia, U. S. A.

February 22, 1913.

Bell Telephone Co. of Penna.,

Dickinson District, Philadelphia.

Gentlemen:—We heartily thank you for your prompt action yesterday morning in restoring our telephone service (Dickinson 619 and 620) after our fire of night before last.

Your men reached here early and quickly had our wires working. In fact they were right "on the job."

Yours truly,
Main Belting Company,
W. T. Plummer,
Secretary.





The Plant Accounting work formerly done in the offices of the Auditor, Engineer, General Superintendent of Plant and Plant Superintendents is now centered in the Plant Accounting offices in Philadelphia and Pittsburgh. Altoona is the dividing point for such work, placing it either in Pittsburgh or Philadelphia.

A new "General Instruction" routine (No. 4) just issued outlines in detail the work of that department. In general, as described more fully in The Telephone News of November 15, 1912, the Plant Accounting includes the summarizing of material, labor, pay-rolls, petty cash, Western Electric bills, transfer credits, miscellaneous bills, posting of estimate ledger, compiling all routine estimates and completion reports, and the forwarding of such information to the Auditor as may be required for the general books of the Companies, and the keeping of plant mileage records for tax districts, central office areas and geographical areas, or such other subdivision as may be required.

The duties of the Plant Accountant are detailed, and those of the Plant Superintendents with reference to this important work are also outlined briefly.

Effective February 1, the summarizing of material and labor for Harrisburg Division was transferred from Harrisburg to the Plant Accounting office at Philadelphia.

In order to make this effective it was necessary to forward all orders and sub-reports, which in the past had been sent to Harrisburg, to the Plant Accounting office in Philadelphia. The following schedule shows the dates upon which the orders and sub-reports were received by the Plant Accounting office:

ORDERS DATED SATURDAY, FEBRUARY 1—Date received in District Plant Accounting Office:

| AllentownFebruary | 4 |
|-----------------------|---|
| AltoonaFebruary | 6 |
| HarrisburgFebruary | 4 |
| ReadingFebruary | 4 |
| ScrantonFebruary | 5 |
| Wilkes-BarreFebruary | 4 |
| Williamsport February | 6 |

ORDERS DATED MONDAY, FEBRUARY 3—Date received in District Plant Accounting Office:

| Allentown | .February 5 |
|--------------|--------------|
| Altoona | . February 7 |
| Harrisburg | . February 6 |
| Reading | |
| Scranton | .February 6 |
| Wilkes-Barre | . February 6 |
| Williamsport | .February 6 |
| | |

In the afternoon of January 17 the employees of the Philadelphia office assembled and organized a society, adopting the name "Plant Accounting Telephone Society." The following officers were chosen: J. W. Cogan, President; Miss Catherine C. Cline, Secretary.

This society will hold meetings once a month in the Plant Accounting office for the purpose of discussing the work. Schedule of dates upon which the orders and sub-reports for the last five days of February were received from the following:—

Date of Orders

Date of Orders

and Sub-Report

EASTERN DIVISION

| | and | Su | b-F | Rep | ort |
|-----------------------------|-----|-----|-----|------|-----|
| District | 24 | 25 | 26 | 27 | 23 |
| | Da | ite | Re | ceiv | ed |
| Atlantic | 26 | 27 | 28 | 1 | 2 |
| Bridgeton | 27 | 28 | 1 | 1 | 2 |
| Camden | 28 | 1 | 3 | 3 | 3 |
| Camden Suburban | 29 | 1 | 3 | 3 | 3 |
| Trenton | 26 | 27 | 28 | 1 | 3 |
| Burlington | 27 | 28 | 1 | 3 | 3 |
| Chester, District Foreman | 27 | 27 | 1 | 1 | 3 |
| Chester, Wire Chief | 28 | 2 | 2 | 2 | 2 |
| Ogontz, District Foreman | 27 | 1 | 1 | 1 | 2 |
| Ogontz, Wire Chief | 28 | 2 | 2 | 2 | 2 |
| Main Line, District Foreman | 28 | 2 | 2 | 2 | 2 |
| Main Line, Wire Chief | 28 | 2 | 2 | 2 | 2 |
| Norristown · · | 28 | 28 | 28 | 2 | 2 |
| West Chester | 27 | 1 | 1 | 1 | 2 |
| Doylestown | 26 | 26 | 27 | 28 | 1 |
| Pottstown | 1 | 1 | 3 | 3 | 2 |
| West Grove | 25 | 26 | 28 | 28 | 2 |
| Toll Gang, Jenson | 27 | 1 | 1 | 3 | 3 |
| Toll Gang, Naylor | 25 | 26 | 28 | 28 | 3 |
| Toll Gang, Rodgers | 27 | 28 | 2 | 1 | 2 |
| Dover | 28 | 28 | 1 | 1 | 2 |
| Wilmington | 26 | 27 | 28 | 1 | 2 |
| | | | | | |

HARRISBURG DIVISION

| District | | | | 24 | 25 | 26 | 27 | 23 |
|-----------------------|----|----|----|----|-----|----|------|------|
| | | | | Da | te. | Re | ce:v | ·e-1 |
| Allentown | | | | 27 | 27 | 23 | 1 | 4 |
| Altoona | | | | 27 | 28 | 1 | 3 | :3 |
| Harrisburg | | | | 27 | 28 | 1 | 4 | 4 |
| Reading | | | | 26 | 27 | 28 | 1 | 3 |
| Scranton | | | | 26 | 27 | 28 | 1 | 4 |
| Wilkes-Barre | | | | 26 | 27 | 28 | 1 | 4 |
| Williamsport | | | | 26 | 27 | 28 | 1 | 3 |
| District | | | | | | | | |
| Central— | | | | | | | | |
| Date Received | 24 | 25 | 23 | 27 | 23 | 3 | 3 | |
| No. Stations Received | 0 | 64 | 27 | 55 | 34 | 36 | 56 | |
| No. Stations O.K.ed | 22 | 31 | 24 | 33 | 33 | | | |
| Middle | | | | | | | | |

Date Received 24 25 26 27 28 1 4

| INO. | Stations | Received | 50 | O | 26 | 27 | 21 45 04 | ł |
|------|----------|----------|----|----|----|----|----------|---|
| No. | Stations | O.K.ed | 22 | 22 | 21 | 20 | 25 | |
| | | | | | | | | |

Western— Date Received 24 25 26 27 28 3 3

| | | | | | | • • • | ٠,, | |
|-----------------------|----|----|----|----|----|-------|-----|----|
| No. Stations Received | 22 | 13 | 0 | 50 | 24 | 23 | 16 | 2; |
| No. Stations O.K.ed | 15 | 21 | 23 | 14 | 23 | | | |

Germantown-

District

| Date Received | 24 | 25 | 26 | 27 | 23 | 4 |
|-----------------------|----|----|----|----|----|----|
| No. Stations Received | 19 | 9 | 0 | 0 | 31 | 23 |
| No. Stations O.K.ed | 7 | 9 | 10 | 3 | 14 | |

Kensington—

| Date Received | | | | | | | |
|-----------------------|----|----|----|----|----|----|---|
| | 24 | 25 | 26 | 27 | 28 | 3 | 4 |
| No. Stations Received | 9 | 20 | 6 | 1 | 15 | 10 | 9 |
| No. Stations O.K.ed | | | | | 11 | | ~ |

P. B. X.—

| Date Received | 24 | 25 | 23 | 27 | •) ·3 | 1 |
|-----------------------|----|----|----|----|-------|----|
| No Continue D | | | | | | • |
| No. Stations Received | 49 | 14 | 18 | 20 | 25 | 17 |
| No Stations O.D. 1 | | | | | | ٠. |
| No. Stations O.K.ed | 13 | 10 | 10 | 17 | 11 | |

Some Requisites for Salesmen

With honesty in its broad sense as a fundamental, the successful telephone salesman needs also a thorough familiarity with his Company's policy and—more specifically—its rates. Back of that he must feel confidence in the knowledge that what he has to sell is of definite value to the prospect. He is conferring a positive benefit on those to whom he explains the advantages of service, and a greater benefit if he wins them as subscribers. This point must be so well settled in his mind that it will give him the courage necessary to interview everyone in his territory needing service. Then obstacles will become incentives to completing the sales. With decided energy behind him, backed by the knowledge that the prospect needs the service and is able to meet the payments promptly, his duties as salesman should grow less difficult as he gains in experi-

There is one other requisite to the highest success that is often forgotten entirely, or minimized by otherwise good salesmen,—namely, the ability to feel and grasp the immediate conditions surrounding the prospect at the time of the interview. If his or her mind happens to be engaged with a duty that a glance will class as of greater importance for the time, the salesman should not fail to postpone his statements and arguments until a more convenient time. He should be sure to leave a good impression so that a second interview may be made without difficulty.

When the later opportunity does arrive and a study has been made of the prospect's needs, the salesman should be prepared for every argument that the prospective buyer may advance. It is understood that he will not be over-solicitous and urge his presence and arguments when they are unwelcome. Experience will of course dictate when to press his points and when to postpone them.

The prospect will judge the Company which the salesman represents by the soundness of the arguments advanced, by the intelligence and even by the personal appearance of the salesman. His very actions will be strongly in the salesman's favor, or against it, because for the time being there will be no other factors by which the Company that he represents may be judged.

The salesman must be a good loser—if he sees that an immediate sale is impossible or if he realizes that a hurried closing of the interview by the prospect may bring him an application for less equipment than he thinks should be furnished. He must display no sign of disappointment or dissatisfaction if the prospect's opinions as to his requirements do not seem sufficiently progressive. On the other hand, he must be ready to advance with tact suggestions as to more nearly complete service as prompted by experience in similar situations.

Theodore N. Vail Honored

Elected a Member of the Corporation of the Massachusetts Institute of Technology

On Wednesday, March 12, Theodore N. Vail. President of the American Telephone & Telegraph Company, was elected a life member of the Corporation of the Massachusetts Institute of Technology. A short time ago a gift of \$25,000 to the Institute was announced. The purpose of the gift is to take care of the cataloguing and maintenance of the Dering electrical library presented by Mr. Vail last summer, and also to the purchase of new books.

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The Philadelphia-Washington Cable

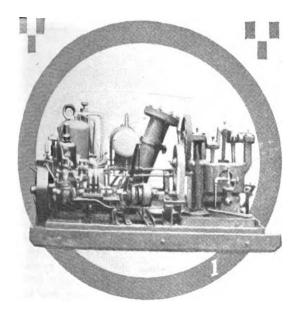
Replacement of a Section by the American Telegraph & Telephone Company

Recently the Cable Division of the Philadelphia Plant had its first experience in replacing a section of duplex cable. Inasmuch as the section formed a portion of the underground cable of the A. T. & T. Company between Philadelphia and Washington, and also because work of this nature differs in many ways from that on an ordinary or simplex cable, it is thought that what might be called a history of the case would prove of interest to the readers of The Telephone News.

There had been for some time a pair in trouble in the section on Chester Pike between Saville and Eddystone Avenues. Being "solid" trouble no apprehension as to the failure of the cable was felt. This locality is just north of the city line of Chester. On February 15 several conductors were found slightly affected by the testmen of the A. T. & T. Company. This fact was reported to the Cable Division. A testman and gang were sent on the job and proved that

1. Air Compressor

- 2. Test Cap with Small Copper Tube B Soldered in End for Connecting Air Hose from Compressor
- 3. A. T. & T. Co. Representative Making Capacity
 Unbalance Tests
- 4, 5, 6. Pittings in Sheath of Section Removed





this trouble was in the same section as the solid trouble above mentioned.

Preparations were at once made for replacing this section. In accordance with the instructions received from the A. T. & T. Company, that Company's engineering force was notified so that representatives could be on hand to make the necessary tests. The new cable was in Wilmington, Del. This was hauled out to the job by motor truck and pulled in on Monday, February 17. We had made arrangements to have two splice gangs—one for each end of the section to be replaced—on hand on February 18 to throw in the new cable.

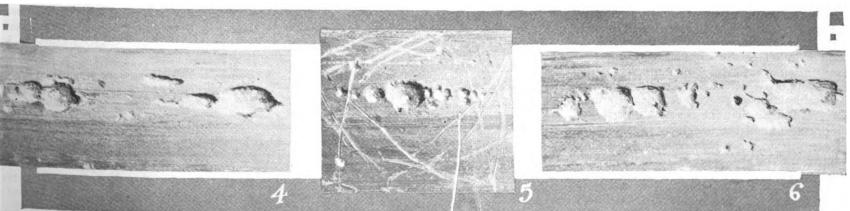
A representative of the A. T. & T. Company from New York arrived on Monday evening and conferred with our representative as to what would be required in the way of tests. From him we learned that in order to replace this section with the least possible disarrangement of the remainder of the cable pairs, it was found to be necessary to open the cable at the nearest loading points each way from the trouble as well as at the ends of the defective section. Therefore it became necessary to place four gangs on the job instead of two which we had provided.

On Tuesday, February 18, in addition to the Philadelphia Plant men and local representatives of the A. T. & T. Company, two members of the engineering force of that Company were on hand to conduct the capacity unbalance and other necessary tests. Owing to the fact that but few pairs were in trouble and that the cable was working very nearly to its capacity, it was found necessary to make tests on but few pairs at a time, restoring these to service before proceed-

ing to the test on the other pairs. This made the work of replacing the section very slow. By working uninterruptedly until Wednesday afternoon the job was completed.

Upon the removal of the old section it was found that the trouble was due to electrolytic Three hundred and fifty-five feet of action. this cable were placed on a reel and hauled to the garage. This was done for the purpose of working some experiments with dry compressed air for removing moisture from cable cases. After the cable was on the reel, tests showed about one-third of the conductors badly affected. After pumping the air through this cable for about two hours, all conductors had an insulation resistance considerably above requirements. Had this trouble been due to a single small hole in the sheath, the hole would have been soldered up and the cable stored for future use. In this instance the sheathing was so badly affected that it was not advisable to do this, and therefore, upon the completion of the experiments, the cable was





Your Share of the Transmission Job

(Continued from page 1)

sion job which is borne by the Plant forces that I desire to call your attention.

Before entering upon the discussion of the details of your job it may be well to mention the importance of that job to the service rendered by the Telephone Company.

We are not in the business of selling commodities as such. We undertake to supply the subscriber for his exclusive use, for such times as he requires, the instruments and wires necessary to allow him to transmit to some more or less distant point energy supplied by himself. The necessary energy supplied by the Telephone Company is just sufficient to carry out the required operations. It is the business of the Telephone Company, therefore, to furnish transmission apparatus, or, as the Commercial man would say, it is our job to sell transmission.

All of the machinery of the telephone plant operates to bring about this one result. The satisfaction of the subscriber is dependent upon two things: first, the ease with which he can get control of the necessary apparatus, and second, the quality of the transmission, that is, the clearness and strength of the reproduction of his own energy which occurs at the other end of the line.

The subscriber, therefore, obtains satisfaction or dissatisfaction through either the Traffic or Plant departments, or both. It is nothing to him that an engineer designed the plant or fixed the rules for operation; he wants to know that the operator works quickly and that the transmission is good.

As the Traffic department employees receive all of the complaints, it is necessary that the Plant department shall protect them by designing and maintaining the plant to give satisfactory transmission. This must be done, of course, with the least expenditure of money consistent with satisfied subscribers. It is thus that the supervision circuits become necessary in order to allow a given number of dollars' worth of plant to handle as large an amount of revenue-making business as possible.

In the early days there were short lines and local battery telephones, and there was no difficulty in carrying on conversations over the wires. As the number of circuits grew and cables became necessary, the size of the wires became greatly reduced in order to economize space. It then began to be observed that less of the energy reached the listening subscriber, and as the cables increased in length the difficulties increased.

It thus became necessary that certain men should be assigned the work of studying the conditions affecting the loudness and the quality of the speech at the listener's instrument, and the transmission engineer became an important member of the engineering force.

Transmission has been looked upon as being a subject upon which no one could gain any considerable knowledge without special preparation. It is true that the theories underlying the working out of the problems involved are available only to those who have had not only the necessary scientific and mathematical education, but who have also been able to make a special study of the subject. It is to these men, therefore, who are highly specialized in

their work, that the investigations of theory and development must be delegated, while the Plant man makes use of the information so obtained and the methods thus provided.

It is not necessary for us to know, for instance, just how many henries of induction are introduced into a cable circuit in a loading coil or how many ergs are used up in heating the iron core of a repeating coil due to the passage of a micro-ampere of current through its windings. What it is necessary for us to know is that loading a cable allows a given quality of transmission to be given over a greater distance than without loading.

So long as we know that certain definite gains are produced by a certain definite job, and are always produced by the same job, we know what to do to get the results. It becomes necessary, therefore, to have a standard measure like a yard-stick or a bushel-basket with which to measure the transmission.

This is commonly taken now as the grade of transmission obtained over standard 19-gauge low-capacity cable having a resistance of 88 ohms per mile and .054 microfarad of capacity per mile. The transmission is expressed in miles of cable. Thus, 25-mile transmission is much poorer than 15-mile transmission.

By comparing the transmission obtained over any given circuit with that obtained over standard 19-gauge cable, the grade of the transmission can be determined. In order to make this work easier, artificial cable has been built up of resistances and condensers having the same effect on transmission as standard cable would have. This artificial cable is put up in comparatively small boxes, and a man can easily carry around almost any reasonable number of miles of artificial cable.

In order that we may discuss more fully the details of the transmission job it seems advisable to renew the fundamentals of the telephone business.

First. Battery, or direct current, flows in one direction only, and if the circuit is open it ceases to flow. Such is the case if a condenser is cut into the line or the line is broken.

Second. Battery current flows as easily through a wire wrapped around an iron core as it would through the same wire lying in a straight line.

Third. Speech currents are alternating currents; that is, they reverse the direction of flow many times a second. When the circuit is opened they cease to flow, but such is not the case if a condenser is cut into the line. The speech or alternating currents flow into and out of the condensers from both sides, and the effect is the same as though it actually passed through it.

Fourth. Alternating currents do not flow easily through a wire wrapped around an iron core; why, is not material to us so long as we know it to be so and can measure the opposition which occurs.

These four things are the basis of all transmission and supervision problems which occur. There is one more, which is an effect of the fourth, namely, the ability of an alternating current to reproduce itself in another winding on the same iron core though there be no metallic connection between the windings.

These things, then, are fundamental:

- 1. A condenser must not be bridged across the line unless the retardation coil is in series with it.
- 2. A retardation coil must not be cut into a line unless it is bridged by a condenser.

- 3. Leaks which allow the current to flow from one wire to the other or to ground must not be allowed to exist.
- 4. Large resistances must not be cut into the circuit unless bridged by condensers.

These are the four sources of a large per cent of the transmission troubles. I shall leave the subject of poor insulation for discussion later. The question of condensers and retardation coils is largely taken care of by the circuit drawings, and if a condenser is found bridged directly across the line or a retardation coil in series with the line, the circuit drawing should be consulted as to the proper wiring to be used. One frequent cause of poor transmission which is difficult to locate is a burned-out non-inductive winding on a No. 118-A relay. The circuit supervision remains O.K., and the only way to determine the condition is to measure the resistance of the relay. A number of such cases were found in Pittsburgh a few years ago.

Unequal capacities between the two wires of a pair to ground due to faulty cable manufacture or central office apparatus may result in noisy circuits. A case of this kind was found in Washington by the cable testman, who declared the lines tested O.K., had high insulation and were properly transposed. Careful investigation, however, showed unequal capacities on the entering cable pair, and using a new cable pair cleared the trouble.

One of the large losses in transmission occurs in the subscriber's line. The amount of energy which a subscriber is able to send over the line depends upon the amount of battery current supplied to his transmitter.

Of the total of 18 miles transmission loss allowed in a strictly local connection, about 9 miles are lost in the two subscribers' loops with 24-volt battery. Of the total of 30 miles transmission loss in a long-haul connection, about 7 miles are lost in the subscribers' loops with 48-volt battery.

As 30-mile transmission is considered about the poorest we desire to give our subscribers on any connection within the reach of our toll lines, it is possible to allow a total loss of 20 or 21 miles outside of the 9-mile subscriber loop losses obtained with 24 volts, or 23 miles outside of the 7-mile subscriber loop losses with 48 volts.

It was on this basis that Mr. W. V. Read, now with the American Telephone & Telegraph Company, and the author worked out the idea of placing in the central office testing circuit an artificial cable of twenty miles. This cable can be cut into the line while the test-board man and repairman or subscriber are talking. If a satisfactory conversation can be carried on over this artificial cable, no difficulty should be experienced on a toll connection due to that subscriber's loop.

This was mentioned in Mr. Mouradian's paper before this society in 1909, and such artificial cables had been installed in several Pittsburgh offices at that time. Since then all common battery and many general system offices in the Central District & Printing Telegraph Company's territory have been equipped as well as eight Philadelphia offices and four offices in the Harrisburg Division.

I may state at this point that the grade of transmission in and about Philadelphia has improved so rapidly in the past few years that when a subscriber makes a transmission complaint the trouble is generally one which can be remedied by the maintenance forces.

The necessity of high grade maintenance cannot be mentioned in language too strong. It has been found in a recent study of the toll plant which will be required for the Delaware and Atlantic and Eastern Divisions in 1922 that it would cost approximately \$300,000 to reduce the transmission loss between distant points by five miles. All of that expenditure would be lost, however, to a subscriber having a few filings under his receiver diaphragm or having a packed transmitter.

A few weeks ago I received a complaint of poor transmission between a local substation and Springtown, Pa. Springtown is operated by a connecting company northeast of Quakertown, Pa., and connecting with our Quaker-

town office.

An inspection was made at the local substation, in the progress of which I made a transmission test with the local test table using the artificial cable. The receiving seemed to be poor and I found filings under the receiver diaphragm, the removal of which cleared the trouble so far as that station was concerned. The total trouble was not removed, however, as a large part was due to the Springtown operator listening in continuously for supervision, and probably poor conditions in the Springtown exchange district.

The effect of careless or ignorant installation and maintenance becomes evident when it

is realized that:

An open non-inductive winding in a 118-A relay causes a loss of three miles;

A packed transmitter may cause a loss up to fifteen miles;

Filings under the diaphragm of a receiver may cause a loss of ten miles;

A demagnetized receiver may cause a loss of five miles or more;

The use of two high resistance heat coils in a subscriber's talking circuit causes a loss of one mile.

A list of the conditions which affect transmission is given below. This list was prepared some time ago by the writer and Mr. F. K. Singer of the Pittsburgh Plant School.

CONDITIONS AFFECTING TRANS-MISSION.

1. Central Battery Exchanges.

a. Central Office.

Cord trouble.
Jack trouble.
Corroded plugs.
Supervisory relay trouble.
Soldered joint trouble.

b. Subscriber's Line.

Grounds on tip side of line. High-resistance loops.

c. Substation.

Buckled or dented diaphragms.
Filings on receiver pole pieces.
Diaphragm touching pole pieces.
Defective cords.
Packed transmitter.
Incorrect wiring.
Side-tone reduction wiring.
Soldered joint trouble.
Poling of receivers on local battery substations connected to central battery cord circuits.

d. Private Branch Exchanges.
Resistance of P.B.X. trunks.
P.B.X. substation loops.
Improper heat coils.
Battery supply.
Switchboard troubles.

e. Inductive Noises.
Unbalanced leakage.
Unbalanced capacity.

Distribution of substations on party lines.

Exposed open wire lines.

2. Local Battery Exchanges.

a. Central Office.
Cord trouble.
Jack trouble.
Corroded plugs.
Soldered joint trouble.

b. Subscriber's Line.
 Grounds, shorts and crosses.
 High-resistance loops.
 Induction trouble.
 Improper terminal conditions.

c. Substation. (See above, excepting side-tone reduction wiring.)

Dry batteries.

d. Private Branch Exchanges.
Operator's battery supply.
Switchboard troubles.
High-resistance loops.

In closing I desire to draw your attention again to the necessity of careful installation and maintenance if we are to secure the full transmission value of the plant.

Your engineer will design the plant to give standard transmission with the least expenditure of money possible, and no margin will be allowed in his plans for errors in installa-

tion or failures in maintenance.

The individual cases which occur, therefore, must be carefully eliminated, and it requires ability of a high order to detect and remedy many of the smaller losses which, individually, may be scarcely noticeable, but which may become important in conjunction with another bad condition.

Summing up the situation in a few words, it is your share of the transmission job to plan, construct and maintain the entire telephone plant up to the standards set by the Engineering department and approved by your officials.

Brief Items of General Interest

The March issue of the Eric Magazine—published monthly by the Erie (Pa.) Chamber of Commerce—devotes a page to an illustrated article on our new building to be erected there.

Atlanta, Ga., has taken a spurt in private branch exchange development. No. 1 P.B.X. hotel equipment of nearly 500 stations will soon be installed in two hotels and No. 2 P.B.X. residence applications are helping to give that city a 20,000-station figure.

A local paper credits Los Angeles, Cal., with the largest telephone operating room in the world. With 8000 telephones served from there, 330,000 local calls and 120,000 toll and long-distance calls are handled daily. [Perhaps there are many other central offices in our territory where these figures could be beaten.]

The Western Electric switchboard and other equipment, shipped to Pekin, China, some time ago, has been placed in working order. Two central offices there equipped for 6400 stations now serve 3000 subscribers. It will be remembered that this was sold under very strong competition from British and other manufacturers.

A Philadelphia Messenger as Salesman



When THE TELEPHONE NEWS of February 1, 1913, printed the picture of a group of Central Philadelphia messengers over the title "Future General Managers" it wasn't trying to be funny. That at least one of these boys realized this has been shown by his work since. Although one of the youngest and smallest of

the messengers employed by the Telephone Company, Francis P. O'Keefe turned in during February the names of three prospects for telephone service, all of whom signed applications when interviewed by a salesman.

Stationery Notes

Blaisdell paper pencils (No. 2) have been adopted as standard, to replace the No. 59 Eagle pencil now generally used.

For those who are now using mailing tubes it may be of interest to note that a gray newsboard wrapper has been adopted as standard, to replace the circular tubes formerly used. New wrappers will be furnished in any quantities needed. The wrapper is furnished in the form of a flat sheet with a patent fastener. It is wrapped around the material to be mailed, and is therefore adjustable to any ordinary circumference. The wrapper, of the same size as the ordinary tube, weighs less and is very substantial and satisfactory. The Western Electric Company will carry a stock of 14-inch and 28-inch wrappers. Other lengths from six to forty inches may be had but will not be stocked.

Business cards furnished on new orders will carry a five-eighths inch A. T. & T. Co. seal in the upper left-hand corner. This seal is to replace the words "Bell System" now appearing in that location. No change in the method of ordering is necessary. Present stocks of cards are to be exhausted before placing orders for the new style. Plates now engraved will not be altered, but the cards will be put through a double process to include the seals.

Good Development

Jacksonville, Fla., within five years has experienced a station growth of 275 per cent. in five years ending December 31, 1912. That city now has approximately 9000 stations.

Regulation, Valuation and Depreciation of Public Utilities

We have received a copy of a book by Samuel S. Wyer, recently published by The Sears & Simpson Co., 116 West Spring Street, Columbus. Ohio, on the subject of Regulation, Valuation and Depreciation of Public Utilities. The treatment of these immediate subjects is somewhat comprehensive in nature and opens a large field for discussion among engineers who are working on these subjects.

Among the large number of illustrations, there is one borrowed from The Telephone News issue of May 15, 1912, page 3, showing a telephone connection on a trunk call. The book is carefully cross-indexed so that various subject headings affecting these large subjects may be readily located.



Hotel Du Pont, Will

The Du Pont

Exterior-Du Pont Building

(Continued from page 1)

Immediately inside of the revolving doors is a roomy vestibule leading to the lobby. On either side of this vestibule is a huge fireplace with proportionate andirons, above which is the hotel crest in stone. The lobby is finished with a wainscoting of Italian marble ten feet high and Caen stone, with solid-looking marble columns. It is a story and a half high, and in the center of the ceiling is an effective green-and-red-leaded skylight. From this is suspended a beautiful electrolier, the lamps of which are softened by large globes. These are of special design,

of an inverted pear shape, and single lamps of this same design are hung throughout the lobby and vestibule. On a level with the mezzanine floor are Colonial mirror-paned windows banked with bay trees.

The hotel desk is on the right as one enters, and back of it are the executive offices, telephone exchange and public telephone booths. Directly opposite the desk is a marble fireplace, the flue of which extends 135 feet to the top of the building. Above the fireplace is one of the last paintings of the late Howard Pyle. It shows a Conestoga wagon loaded with Du Pont powder, and stopped before an inn on the Montgomery Pike during the War of 1812. The buffet to the left of the lobby has some charming mural paintings

executed by Charles De Feo, a Wilmington artist. These are all marine views of scenes near Wilmington. This room and the grill room in the basement are finished in fumed chestnut, with high wainscoting and heavily beamed ceilings.

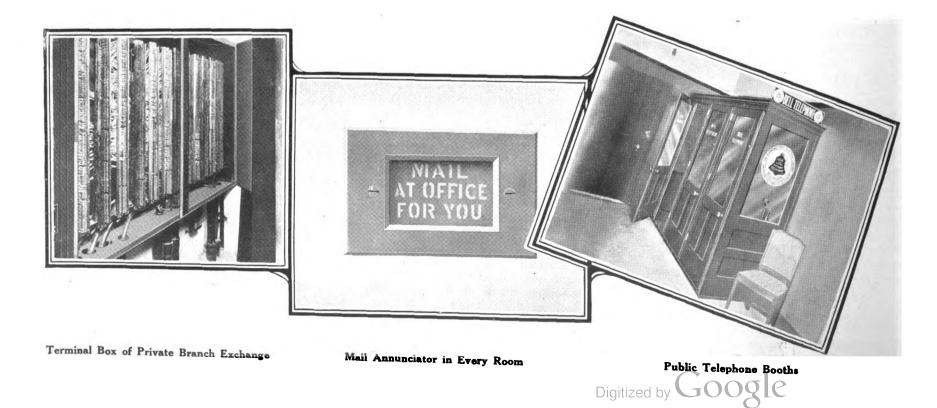
Main Dining Room

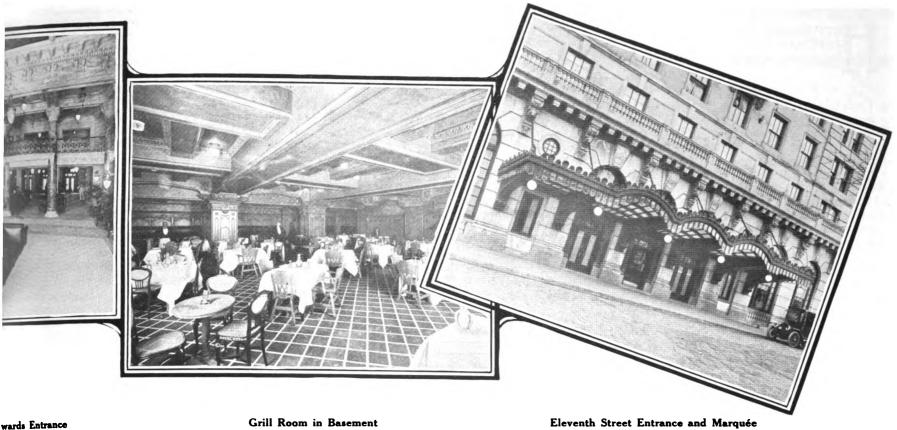
Over the vestibule on the mezzanine floor is an inviting balcony, popular in the late afternoon when tea is being served.

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At the right of the vestibule, as one enters the hotel, is a beautiful salon finished in gray, red and gold of the period of Louis XIV.

To the left of the vestibule, directly opposite on the Sixth and Market Streets corner, is the main dining room which will accommodate 200 persons. It is finished in quartered oak, with green walls and hangings and with chairs upholstered in green. Several private dining rooms





ington, Delaware

which will seat from five to fifty persons are located on the mezzanine floor. These are finished in Circassian walnut, with gray tapestry hangings, and curtains of crimson and gold.

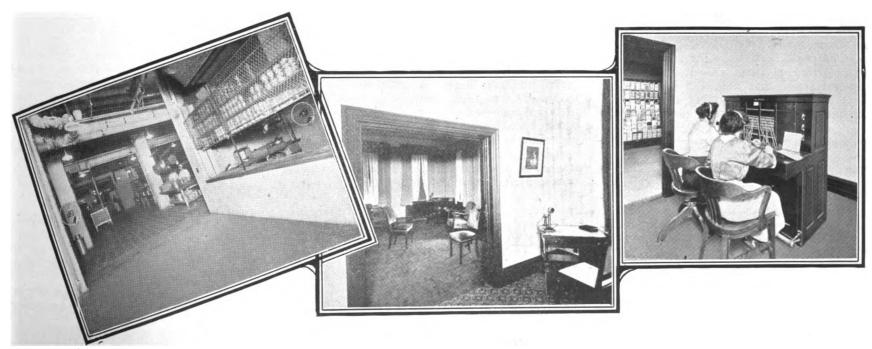
In the basement are the grill room, billiard room, wine-storage vaults and the kitchen. The kitchen is indeed a model. Either gas or coal may be used for cooking. Every known convenience is installed, such as automatic potatopeelers, dish-washers, etc., all operated by independent electric motors. The hotel has its own ice-making plant, with a capacity of three tons a day. There are twenty large refrigerators, each reserved for a different food article. A special ventilating device has been installed here which carries off all cooking ordors and keeps the kitchen at a comfortable temperature. The kitchen at a comfortable temperature.

bakery is unusually large, and the hotel prides itself particularly on its rolls and pastry. hotel also has its own complete laundry. guest rooms are finished in mahogany and furnished with brass beds. Each room contains a lavatory supplied with hot, cold and ice water, a mail indicating device which operates automatically whenever mail is put in a guest's mail box, a desk Bell telephone, a thermostat which automatically acts as a fire alarm, and an electric fan. There are in all 250 single rooms and suites. The mail announcer is used to record receipts of mail during room occupant's absence.

The walls of several of the rooms as well as many of the chairs and settees throughout the hotel are covered with "Fibrekoid," a nitrocellulose by-product of the Powder Company. It is beautiful in appearance, and from present indications will prove extremely serviceable.

On the eleventh floor is a large ballroom with an adjoining reception room. The ballroom will accommodate 500 persons. It has a complete stage with dressing rooms, and is especially suitable for musicales and amateur theatricals. A large roofgarden is to be opened in the spring of 1913.

The Hotel Du Pont is thoroughly telephoned. Everywhere one goes there is a Bell telephone at his elbow, and very naturally the telephone is depended upon almost wholly for carrying out the various details of administration. The 208 stations in the hotel are operated from a twoposition branch exchange switchboard connected with the Wilmington central office by ten trunk lines.



Kitchen-Well Telephoned **Bedroom Suite** P. B. X. Switchboard

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Allentown District

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WOLF

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Geo. W. Wolf
A.W. Shapen
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Harrisburg Division and District Correspondents

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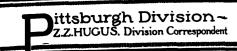
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"What!" said the telephone subscriber as his quarterly bill was presented, "three months gone again?"

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New Castle Dry Goods Company, New Castle, Pa., 2 trunks, 6 stations.

Martin & Martin, attorneys, New Castle, Pa., trunk, 4 stations.

Protected Home Circle, Sharon, Pa., 1 trunk, 4 stations.

We are daily showing a number of visitors through our New Castle central office. A few days ago our representative was explaining the operation of our system. After doing his best to make everything clear, he was asked by the lady who had seemed much interested, "Now will you please show me where Central is?"

At Sharon we have had a subscriber by the name of Hell who conducts a bakery. At his request he has been listed as Hell's Bakery. Just a few weeks ago our Manager was successful in obtaining an application from a Dr. St. Peter. This but illustrates the Company's policy for universal service.

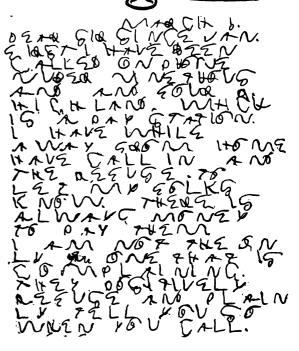
One of our Girard (Ohio) subscribers recently called the Chief Operator and asked her if she was very busy. The subscriber wanted the Chief Operator to talk to her young daughter for a few minutes, as she hoped the daughter would in this way become familiar with the use of the telephone.

In connection with a campaign to reduce the number of lost toll calls the Rochester office reports the following:

A Beaver subscriber placed a call for anyone at Station L on a line connected to Neville exchange, Pittsburgh. The telephone was reported "Don't answer," and the calling party canceled the call, stating that she wanted to deliver a message to the milkman who stopped at Station L, but would find another way to reach him. The Rochester operator requested her to wait near the telephone a few minutes until another effort could be made. She then called Station J on the same line and asked if they dealt with the same milkman as Station L. An affirmative reply was received and the Beaver subscriber was notified and the call was completed to Station J. The subscriber was very appreciative of the service HARPER. rendered.

Pittsburgh District

The following letter, which was received by the Pittsburgh Cashier from the vice-president of a prominent foundry company, convinces that even were it not the Company's policy to make such refunds on the grounds of fairness to its patrons, it would be a means of making friends.



Letter Received in Pittsburgh—Written by Child at Dictation of Parent

Pittsburgh, March 15, 1913. The Central District & Printing Telegraph Com-

pany, City.
ear Sirs:—We have to-day received a refund Dear Sirs:of five cents in stamps for an overcharge of five cents, the writer having dropped a dime in a pay station instead of a nickel.

This attention and disposition to fair dealing merits the courtesy of a reply and thanks, which I beg to offer.

Yours very truly,

"I not need you send to me this paper with that notice. I do send to you a check once everi No. 2 mounth. if you Do not like let me now.

Yours truly,

A Pittsburgh salesman turns in an application with the following reason for rush installation: Company's market fluctuations are such that flurries are imminent and involve a large amount of money. Must have service immediately."

Telephone teas, bridges and luncheons are quite frequent in Pittsburgh and its suburbs. Almost daily the society columns of the newspapers contain accounts of such functions to which the guests have been invited by telephone.

The latest affair is a dance given by representatives of Pittsburgh's four hundred. It is men tioned first in the society column and includes the sentence, "The invitations were sent out by telephone."

Special telephone facilities were installed in the Pittsburgh Exposition Building for the Automobile Show which was recently held there.

A two-position switchboard serving forty-five subscribers' stations and three public stations, the latter in booths, was installed. The subscribers were a number of the exhibitors.

The C. D. & P. Tel. Co., Pittsburgh, Pa.

Gentlemen:—i don't like to Do this But i am Drove up to it Now i have some one on the same line only they are -J- and i am L so Sunday march the 2th my wife was Talking to a freand and some one on that Line was talking to the freand at the same time and makeing fun at them





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We are daily showing a number of visitors through our New Castle central office. A few days ago our representative was explaining the operation of our system. After doing his best to make everything clear, he was asked by the lady who had seemed much interested, "Now

will you please show me where Central is?"

At Sharon we have had a subscriber by the name of Hell who conducts a bakery. At his request he has been listed as Hell's Bakery. Just a few weeks ago our Manager was successful in obtaining an application from a Dr. St. Peter. This but illustrates the Company's policy for universal service.

One of our Girard (Ohio) subscribers recently called the Chief Operator and asked her if she was very busy. The subscriber wanted the Chief Operator to talk to her young daughter for a few minutes, as she hoped the daughter would in this way become familiar with the use of the telephone.

In connection with a campaign to reduce the number of lost toll calls the Rochester office reports the following:

A Beaver subscriber placed a call for anyone at Station L on a line connected to Neville exchange, Pittsburgh. The telephone was reported "Don't answer," and the calling party canceled the call, stating that she wanted to deliver a message to the milkman who stopped at Station L, but would find another way to reach him. The Rochester operator requested her to wait near the telephone a few minutes until another effort could be made. She then called Station J on the same line and asked if they dealt with the same milkman as Station L. An affirmative reply was received and the Beaver subscriber was notified and the call was completed to Station J. The subscriber was very appreciative of the service HARPER. rendered.

Pittsburgh District

The following letter, which was received by the Pittsburgh Cashier from the vice-president of a prominent foundry company, convinces that even were it not the Company's policy to make such refunds on the grounds of fairness to its patrons, it would be a means of making friends.

Letter Received in Pittsburgh—Written by Child at Dictation of Parent

Pittsburgh, March 15, 1913. The Central District & Printing Telegraph Com-

pany, City. Dear Sirs:—We have to-day received a refund of five cents in stamps for an overcharge of five cents, the writer having dropped a dime in a pay station instead of a nickel.

This attention and disposition to fair dealing merits the courtesy of a reply and thanks, which I beg to offer.

Yours very truly,

"I not need you send to me this paper with that notice. I do send to you a check once everi No. 2 mounth. if you Do not like let me now. Yours truly,

A Pittsburgh salesman turns in an application with the following reason for rush installation: Company's market fluctuations are The such that flurries are imminent and involve a large amount of money. Must have service immediately.'

Telephone teas, bridges and luncheons are quite frequent in Pittsburgh and its suburbs. Almost daily the society columns of the newspapers contain accounts of such functions to which the guests have been invited by telephone.

The latest affair is a dance given by representatives of Pittsburgh's four hundred. It is men tioned first in the society column and includes the sentence, "The invitations were sent out by telephone."

Special telephone facilities were installed in the Pittsburgh Exposition Building for the Automobile Show which was recently held there.

A two-position switchboard serving forty-five subscribers' stations and three public stations, the latter in booths, was installed. The subscribers were a number of the exhibitors.

The C. D. & P. Tel. Co., Pittsburgh, Pa.

Gentlemen:—i don't like to Do this But i am Drove up to it Now i have some one on the same line only they are -J- and i am L so Sunday march the 2th my wife was Talking to a freand and some one on that Line was talking to the freand at the same time and makeing fun at them and the same Day in the afternoon She was talking to Some one When a man But in on the line and she ask him to get off the line and his is what he said to her Call her Dum and told her to get oft the line. Now i will not stand for that So if you Cant do any think to stop it i will Haft to say take the Phone out as i think i have stud a nouff as his has Been going on for the Last 6 or 8 months moust every time our Phone Rings they anser it and Sevel time they would ancer Befor we could get to it and tell them that we was not in now if that the case there is no youse for me o Pay for whot i don't get so if you Cant Stop them or Put me on another line i will Haft to Have it taken out as i will not stand it any longer and Pay the Price each month

Will you let me hear from you about it Yours truly

Uniontown District

The Fairmont Manager recently initiated a thorough canvass among the merchants and business men of his sub-district with a view to superseding them to better grades of service. One of the striking results of the first week's campaign was that five merchants, all dealing in foodstuffs, were sold "double-track" service, and in all except one of these cases this involved not only selling an auxiliary line, but a change of the original line from party to direct. Each line of business will be taken up separately and thoroughly canvassed, not only in Fairmont, but in the entire district, and it is anticipated that splendid results will be obtained not only in the matter of increasing stations and revenue, but in bettering the service for residence patrons who deal with the business people.

The Western Electric Company has completed the extensions and additions to the Uniontown switchboard which have been under way for several months. The toll business throughout Fayette County is now on a two-number basis, and these calls are handled directly by the local operators. Much favorable comment has been made by the public and by the newspapers on the improved service since this plan has been put into effect. On account of the work that was being done on the switchboard, subscribers were not invited to visit this central office until the additions were completed. Among the first visitors were representatives of the local newspapers, who seemed much interested in what was being done and published long news articles describing the steps which the Company had taken to increase its facilities and improve its service. The newspapers extended to the public for the Company an invitation to visit the central office and see the equipment for themselves.

An employee of the Company, living in Uniontown, was rather surprised upon answering his telephone about nine o'clock one Saturday evening recently to find his rector on the other end of the line with a cheery reminder that his presence at church on the following morning would be appreciated and would do good to both himself and his pastor. This employee was interested in this method of "canvassing by telephone for a congregation" to the extent of calling on the rector the following week to find out to what extent he had used it and how the congregation of the following day compared with the average ones. He was informed that practically all members of the congregation who had telephone service had been called and that the attendance at the morning service on the following day was very much larger than usual. It might be added

as an evidence that modern efficiency is appreciated in clerical as well as in business circles, that this particular clergyman has just accepted a call to a parish which is considered one of the most desirable in the state.

A school for training operators was started at the Clarksburg exchange recently. One of our subscribers upon hearing of this school called the Chief Operator and asked if we had any good girls for general housework. After being advised by the Chief Operator that we did not teach domestic science, the subscriber added, "Well, you have a school for teaching the girls operating, and I do not see why you don't teach them housework."

The Clarksburg office was advised recently that one of the local subscribers was expecting to move. An effort was made to reach him by telephone. Being unsuccessful in this attempt, a salesman was sent out to investigate. Upon entering the house, he noticed that the telephone had been removed and asked the subscriber where it was. He was very promptly advised that the instrument was locked up in the trunk ready for moving.

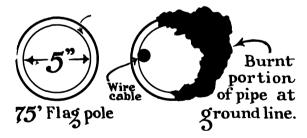
MISS HEPPLEWHITE.

Lightning Near New Kensington, Pa., Pittsburgh Division

When a stroke of lightning develops energy sufficient to melt away half of a five-inch steel tube with walls one-half inch thick, it becomes quite apparent even to the layman that our lead-covered cables and other plant need protection of the most efficient kind. In fact, the best protection we can provide sometimes proves inadequate.

The Wire Chief at New Kensington reports a very peculiar incident happening recently at the plant of a steel company at Brackenridge, Pa.: A seventy-five-foot steel flagpole was struck by

A seventy-five-foot steel flagpole was struck by lightning and fell down through six trunk lines and a generator circuit which serve this steel works with private branch exchange service.



A portion of the pole at the ground line was melted and spread out two and one-half inches beyond the original surface of the pipe. The melted steel, after cooling, resembled a fresh cinder and the edges were easily broken away.

It is supposed that the lightning charge, being extraordinarily large, when at the ground line spread out in the moist earth, causing heat sufficient to melt away about half of the heavy pole, which was filled with cement and contained a stranded cable.

New Society

At Atlanta, Ga., the "Southern Telephone & Telegraph Society" is in process of formation. Its object is to cement closer relations among employees of the Southern Bell Tel. & Tel. Co., the A. T. & T. Co., the Western Electric Co. and the Western Union Tel. Co. in that Bell head-quarters city.

Saving Through Anticipation

In Los Angeles, Cal., there was, a short time ago, a pole line carrying two 16-pin cross-arms with six additional pairs of wires attached beneath the lower arm. Anticipating heavy development in that rapidly-growing neighborhood of the city, a 200-pair 19-gauge cable was proposed. The street there was sixty feet wide and the pole line was in its usual place inside the curb. However, between the time of preparing the estimate and the actual starting of the construction work, proceedings were begun to widen the street to 100 feet.

There were then possible two methods of pro-The placing of cable could have been postponed several months until the street change had been completed, or other poles could at once be placed in the location which the new street width would require. The latter plan was chesen. When the work was ready to be started, the private property for street widening had not been condemned. It was therefore necessary to obtain permission for the pole removal from both the city and the property owners. By so doing \$2450 was saved in estimated cost of pole-line removal after the cable had been placed. Also the Company was able to take care of its growth promptly and satisfactorily to itself and its subscribers. There were other large savings, according to the Pacific Telephone Magazine in this instance of anticipation in pole-line construction,

Alive to the Telephone

Mauger & Mauger, Philadelphia druggists at Fifty-second and Spruce Streets, have issued a tasteful folder calling attention to the window booth installation in that store. They emphasize their nearness to all purchasers of drugs and similar wants who have telephone service.

lar wants who have telephone service.

"We Help the Physician," says the folder.

"We'll Quickly Respond. When you want anything from a drug store, just step to a telephone and let us know what it is. We will respond quickly, for prompt service is one of our hobbies. . . . Get the telephone habit. If you are in the city, delivery will be made by special messenger. If you live on a rural route, goods will be delivered promptly by parcel post."

Campaigning by Telephone

A campaign for Congress by use of the longdistance telephone is a novelty, but its efficacy has been demonstrated by a "Denverite" who is now in Washington.

When the campaign for the office was waxing its warmest, G. J. Kindel, a nominee, was struck by a motorcycle and one of his legs was injured. A physician advised him to go home and rest up a bit. After "resting up" for two weeks, it was discovered that the leg was broken.

Undaunted, he had a telephone installed at his bedside and began the only telephonic race for Congress on record. Every man and woman of importance in the whole district was called.

His opponent did not consider his race seriously. On the morning of the election Kindel was carried to the polling place on a stretcher,—against the advice of his physician.

When the votes were counted it was found that George J. Kindel had received a larger vote than any other candidate in his district, attributable in no small measure to his canvass by telephone.





Atlantic District

In a speech delivered before the Business Men's Association, Mayor Headley of Ocean City referred to the efficiency which had been attained by the police department as a result of the police telephone system which was installed some time ago.

During the month of February, 21 suggestion slips were received at Atlantic City office. Through these the Commercial men were able to secure 10 new stations, bringing a total new revenue of \$334.

The Sca Isle City Review of March 8 has the following to say: "The Bell Telephone Company's business at Sea Isle during the month of February shows a remarkable increase over the same month in former years. Seven new subscribers were added during the month to the already large list, and the toll or long-distance calls are in excess of any year since the establishment of the exchange. One reason for this increased business is the fact that Sea Isle City has

When paying his bill at the office he stated that by using the telephone for help, at the time of the fire, he saved several hundred dollars' worth of stock and material and that now he would not do without his telephone.

The following bulletin was issued to its employees by a manufacturing concern in this district: [Looks like sales opportunity.]

"There is one thing that you don't seem to recognize, and that is that the Bell Telephone people have all the business that they should have, and that it is everybody's duty to help them along and get a call through so that the other fellow can have the wire. That's a duty that we should do so as to enable them to give good service.

"It would also help us if everyone would be on the job and get people to the telephone, so that the operator doesn't have the necessity of calling more than once for a party.

"I trust that everyone will feel it his duty, not only for the good of our business, but to assist the Bell Telephone people in getting good and efficient service.

"You can see the necessity. Take such steps as are necessary to help out in this matter."

At 2.45 A.M. on March 11 a terrific explosion aroused the inhabitants in the town of Shiloh, four miles from Bridgeton. It was immediately

Erecting

the air with long pike poles. The struggle between the men and pole was usually a close one, as the pole weighs just about as much as the twenty-five men—two tons or more.

The present method of erecting poles is shown in the two reproductions on this page. While one picture shows four men and the other five, it is only necessary to have three men in all to erect a pole—two at the pole and one on the truck.

The pole in the picture is 55 feet long and was erected at Haddon Avenue and Tanner Street, Haddonfield, N. J., on the No. 1 Philadelphia-Atlantic City toll line.

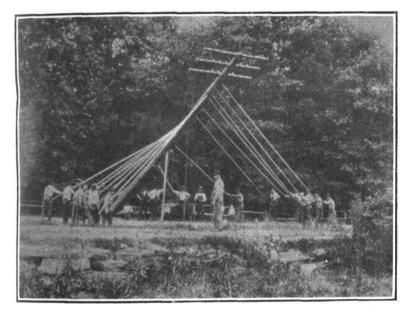
A sling is placed on the new pole, to which a block and tackle is attached. Another block and tackle is also attached to the old pole and a pull line passed through snatch-block at foot of old pole and fastened to the one-ton Mack truck. As the truck moves away the pole is raised and the two men steady the butt and keep it sliding on the board and against the curb so that it will not dig up the street unnecessarily.

WRIGGINS.

Doylestown Sub-District

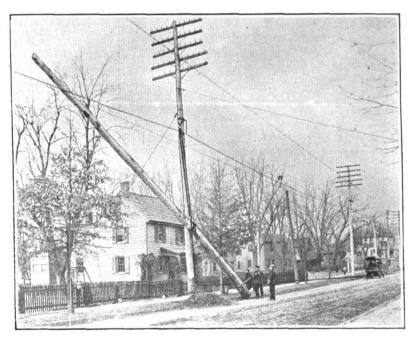
A meeting was held on February 28 at Fountainville, Pa., at which time the Willow Dale Rural Company, a Plan "A" rural line of 7 subscribers, was organized to connect with our Doylestown exchange.

HENNESSY.



Former
Method
By
Hand
at Left
Present
Method
With
Motor
Truck
at Right

See Camden District News



entertained a larger number of visitors this month than ever before during a winter month. These visitors coming from large cities have acquired the telephone habit and do not hesitate to use the wire when they wish to communicate with friends at a distance. Another reason for the increase is that the local people are getting the 'hello' habit."

Bridgeton Sub-District

A subscriber who had had telephone service less than a year was compelled to move. He called the office and asked how long it would be before his telephone could be moved. He said he was holding up three other removals by not getting out of his house, but he would not move into the new house until the telephone was installed, as he would not be without service.

The owner of a farm, located just outside of the city limits of Bridgeton, whom we had been canvassing for some time came in the office one day and signed for service. Just two weeks after the telephone was installed his barn and outbuildings caught fire and were burned down.

discovered that the safe had been blown open in the Post Office, which is located in a general store on the main corner of the town.

The telephone was immediately pressed into service and the Night Operator at Bridgeton, Miss Mary Kauffman, responded nobly. The police department at City Hall, Bridgeton, was called first. They soon got in touch with the Prosecutor, who immediately ordered the detective force and the police to the scene of action. The Shiloh people, at the same time, telephoned to all the farmers living within a few miles of the town, who all turned out with guns. The tracks of three men were traced and they were finally captured within ten miles of Shiloh. Two of the men have been recognized as well-known and dangerous criminals.

Camden District

The accompanying cuts show a decided contrast in the old and new method of placing poles.

The method pursued in the old way of erecting a pole, which, as the picture shows, took about twenty-five men, was to place a wheel truck under the base of poles and then push the other end into

Norristown District

We recently secured two rural telephone companies with 7 subscribers each—one to be known as the Farmers Rural Telephone Company, and connected with Souderton exchange, the other one to be known as Macoby Valley Rural Telephone Company, and connected with Pennsburg exchange.

A Norristown subscriber recently complained to the proprietor of one of our local garages because he was unable to get him on the telephone when his automobile was broken down. The garage proprietor asked his patron what answer the operator had given, and the subscriber stated that the operator reported they did not answer. This report the garage man could not understand, as there is an employee at the garage night and day, so he asked the subscriber what number he had called. The subscriber said:

"Why, I called your number, 316."

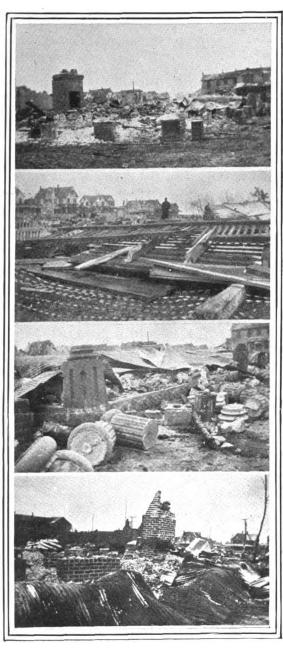
The garage man then replied:

"That is not our telephone number."



The subscriber became indignant and declared that it was the correct number. After some arguing they referred to the telephone directory, and it developed that the subscriber, instead of calling the garage by its telephone number, had been calling the number of its street address.

BEERER.



Fire at Rehoboth, Del. (See page 19)

Trenton District

A striking illustration of how a salesman's argument in selling telephone service often demonstrates itself recently occurred.

A subscriber appeared at the office to order the disconnection of his telephone, and when reminded by the clerk that he might need the service at any time because of sickness or an emergency, replied that he had not had any sickness in his home for many years and that he would run the risk. The salesman who interviewed him later was likewise unable to persuade the subscriber to change his decision and reported the case for permanent disconnection. Before the disconnection order could be completed, the subscriber, greatly agitated, called the office begging that the telephone be left connected as one of his household was seriously ill with scarlet fever.

On Saturday evening, March 1, Mr. J. M. Repplier, Atlantic Coast Division Manager, gave an illustrated lecture on "The Wonders of the Telephone" in the Auditorium of the Republican Club at Trenton, N. J.

The Chairman of the Club Committee of Ar-

The Chairman of the Club Committee of Arrangements was particularly delighted with the idea that the Telephone Company would be willing to give a lecture of this sort and had special invitations sent to each member of the Club requesting him to attend and bring one friend.

The newspapers in Trenton published announcements of the meeting and an editorial stating that the Telephone Company is opening its doors to the public in order that they might learn how the telephone works.

There were about 200 men present, and that the meeting was a success could easily be seen by the close attention given to Mr. Repplier.

The Public Service Electric Company of New Jersey also believes that lectures given to the public are profitable, and it has been learned that that company is making arrangements to give a lecture at the Republican Club in the near future.

During the week before the lecture was given an employee of the Company was asked by a minister of one of the large churches if he thought the lecture could be secured for his Brotherhood members.

The following is a copy of the note pasted in the pocketbook of one of the combination men:

> "If this pocketbook is found, Please don't carry it around, But return it when you can To this bone-head telephone man."

-W. F. K., 216 E. State St.

GARWOOD.

West Chester District

On March 15 the West Chester District office received a request to call a Kennett Square (Pa.) business man to an automatic pay station, collect a given amount by having him deposit it in our coin-box for a bill of goods he had ordered from the West Chester merchant and to turn the amount over to the West Chester merchant through our Cashier at West Chester. The merchant being a subscriber, expected this as a favor, without cost to him or his prospective customer.

On Tuesday, March 4, 533 subscribers' payments were received at the West Chester office. This is an unusually large number for one day and is without doubt a record for West Chester.

A prominent doctor of West Chester, Pa., recently advised one of his patients to install our extension service in his living room on the second floor. The doctor explained: "It is very important that you should not run up and down stairs, and the cost of an extension telephone is such a trifle compared with your health that you should lose no time in having one installed."

Spencer Trotter, Professor of Biology at Swarthmore College, was recently granted the privilege of erecting a bird box on one of the telephone poles in front of his home at Cheyney, Pa.

The strong windstorm of Sunday, March 2, blew a heavy tree over onto our line at Westtown, Pa., putting about ten trunks and thirty-five subscribers out of service. The linemen were called out at 5 P.M. and had everything working by 8 P.M. the same evening.

GREENFIELD.

Wilmington District

The underground work north of the Wilmington central office and the providing of additional facilities for development in this section have been approved as follows:

The building of about 1.4 miles of telephont subway to consist of from 1 to 3 ducts and the placing of over 3½ miles of underground cable containing from 25 to 300 pairs of wires. This new construction will do away with nearly 2 miles of aerial cable, 38½ miles of overhead wire and 4 miles of overhead twisted pair wires, which will be removed.

About 2.30 P.M. on Friday March 7, fire was discovered in a tailoring establishment in the residence section of Wilmington, and the ring. wires feeding several telephones in the immediate neighborhood were burned. Mr. Geo. A. Tarbutton, a Rights-of-Way Assitant connected with the Wilmington District, happened to be in the vicinity and immediately grasped the situation, Knowing that a ring-wiring gang was working about five blocks away, Mr. Tarbutton immediately called the Installation Foreman's office and arranged to have the gang transferred to the scene of the fire, with the result that within an hour new wires had been run and all stations affected had been O.K.ed with the exception of the station in the tailoring establishment, which was destroyed. One subscriber, a prominent retail grocer, whose service had been affected was particularly gratified at the promptness with which service was restored. CHAMBERS.

Fire at Collingswood, N. J.

By W. C. Culin, Plant Chief, Camden Suburban

On February 26 a \$40,000 fire destroyed several buildings in Collingswood, N. J., five miles from Camden. It was said to have been caused by workmen who were drying tar paper in a newly constructed motion-picture theater.

The burned buildings included a theater, two stores, the Post Office, a hall and two houses. Three men were injured, one seriously. The Collingswood fire department was assisted by two fire companies from Camden in extinguishing the fire.

All of the burned buildings were close to our Collingswood-Haddonfield toll lead. One pole two sections of 30-pair toll cable, 36 toll wires and four subscriber wires were partially destroyed by the fire

The fire started at 12.05 noon and was not under control until 2.30 P.M. By 3 P.M. an emergency cable had arrived in the Company's motor truck from Philadelphia and the work of reconnecting the trunk lines begun. On account of the intense heat it was necessary to wait nearly an hour after the fire was over before the lines had cooled sufficiently to be workable. Our men worked continuously until 4.25 the next morning, most of the time in the pouring rain, to restore the service over these lines.

Mr. J. L. Moore, Equipment Superintendent of the Public Service Corporation of New Jersey, offered our Company the services of his men. They rendered valuable assistance in placing a guy on the line leading south.

Estimates are now being prepared to cover the replacement of the affected overhead plant by underground construction,— this in line with the Company's policy gradually to extend its conduit system into the territory suburban to Camden.

It is of interest to note that approximately \$1,250,000 will be spent for additional underground construction throughout our territory during the present year.

\$125,000 Fire at Rehoboth, Del.

By E. D. Prince, Local Manager, Dover

On February 22, Rehoboth, Del., experienced the worst fire in its history. The fire, which started at 8.15 A.M., burned until 12.30 P.M., causing a total damage of \$125,000. Eighteen cottages, an office building, a hotel, a garage and all the stores in the town were destroyed. Starting in a garage on Rehoboth Avenue near First Street, and fed with oil and gasoline, the fire was soon beyond control. The local fire department, assisted by most of the inhabitants of the town, fought bravely to stop the progress of the fire with buckets and ladders. Handicapped as they were by the lack of any modern water supply, they soon realized that the fight was a losing one and summoned aid by telephone from Lewes, Dover, Milford, Clayton, Wilmington and other towns in the state. Knowing that considerable time must elapse before any of these companies could arrive, although they were being transported at all possible speed on special trains, it was decided to use dynamite. The Telephone Company was again appealed to, and quantities of the explosive were located at different places although none of it arrived in time to be of use.

The Telephone Company furnished constant reports of the progress of the trains bringing assistance, and these reports encouraged the people of Rehoboth to continue the fight until the Lewes fire company, which finally conquered the flames, could arrive. The Company also rendered valuable service in keeping out-of-town owners of Rehoboth property informed of the progress of the fire

The Plant department had its men at the scene of the fire soon after its start, and under the direction of Plant Chief Hartman these men prevented any interruption of the telephone service although several poles were burned.

A great many of the citizens of Rehoboth expressed to the Local Manager their appreciation of the valuable and efficient service rendered by the Telephone Company.

The operators deserve special praise for doing a great deal more than their duty in handling the enormously increased traffic caused by the fire,



Between Pennsylvania State Line and the Wilmington City limits, in Delaware, the new Holly Oak central office now serves 200 subscribers formerly belonging to the Wilmington area. (See also page 3, column 3.)

Humor in Telephone Business

The author of the following saying remains unknown but he must have been a well-rounded man to appreciate how important a place the lighter vein plays in the lives of men:

"A little nonsense now and then Is relished by the wisest men."

If The Telephone News could record all of the humorous happenings in our territory in which the telephone takes part we would have a funny sheet ranking second to none. However, there are a large number of incidents with the repetition of which our paper has amused the employees. We have retold briefly some of them below in order to recall some of these amusing cases which were published in the paper.

Thanks

At Huntingdon, Pa., a rural subscriber was so well pleased that he called at the business office to thank Mr. Bell personally.

Judgment Errors

A requisition for supplies, for one business office with but two men, called for two more cuspidors, making a total of six.

A wrote B applying for 12 pairs of cable conductors. B wrote C instructing him to issue a line order. B wrote A saying that it had been done. B wrote D requesting that A be billed. A wrote B that 6 pairs only were furnished. B wrote E and reported the fact. E wrote B stating that 3 pairs only were sent. F wrote G asking now many pairs were to be billed. G telephoneu and found out and then telephoned F.

Habit

One rural subscriber became so used to her telephone that in grinding coffee she gave one long and one short turn and said "Hello!"

A little sick girl was so used to the service in her home that when the physician examined her with a stethoscope she told her father that she'd been "telephoned all over."

The minister in a large church announced the morning hymn as three-four-oh in the same way he usually announces his numbers to the operator.

One court witness responded to the crier's roll-call by saying "Hello!" instead of "Present!" or "Here!"

Trouble Clearing

A two-pound directory hanging from the telephone hook was the "trouble" easily cleared by our man when summoned by a rural subscriber.

A voucher that bothered the office force read, "New leg on dead man." Any Plant man would recognize this repair cost as necessary at any cost

Rural subscribers complained that they could not use the line because someone had left the receiver off. By the crowing of a rooster on a large poultry farm served by the line, the "guilty" subscriber was promptly located and instructed.

Mrs. A—— was surprised when told that the cutting of baby's teeth on the telephone cord short-circuited the station. Likewise Mrs. B——— was notified that the use of the tele-

phone cord as a pincushion while sewing did not benefit the service.

Lights in one rural place were turned out at night to clear the noise on the telephone lines. This interruption was necessary only when someone wanted to talk on a certain line parallel with the high-tension circuit.

A buzzing sound charged to the telephone was found to be caused by the vibration of the wall paper placed over a chimney-hole.

Information

Operators consider it little or no novelty to be asked how to fry potatoes, where to locate one-legged men, which Smith owns cemetery lots, if _____ is colored, and how long it will rain.

An Italian boy, who said that his father wanted telephone service, gave these directions to the salesman:

"Near Sam Perri, the one-legged man, closest yellow house, high porch, green steps, concrete wall, upper right-hand attic window broken; goat next door."

With this apology a thrifty subscriber asked for a friend's telephone number: "I know it is in the directory but it's too early to light the gas and too dark here to see without doing it."

When told by an information operator to signal her operator, another subscriber did so and asked for the "signature operator."

A salesman received a card to call and interview Morning Star regarding service. When he asked if that newspaper office was located in the building he was told that it was the name of the man of whom he had inquired.

The collector who called to locate an absent debtor was told by the man's wife that her husband had left with "his infinitive" and there was no way to tell when he would return.

A subscriber had experienced such trouble in getting fresh eggs, that he bought forty-four dozen from a farmer and then telephoned home to inform his wife that now they would have fresh eggs for a while.

A woman who had spent the summer at one of the resorts became quite intimate with a Mrs. Jones from her home city. She didn't, however, have occasion to learn her husband's initials. Upon returning home it took her two days to go through the local telephone directory and call the Joneses that appeared there. She succeeded finally.

Selling and Collecting

It must have been a new salesman who filled out the blank application by transposing annual cost and the number of messages in their respect-

Digitized by GOGIC

ive spaces. The application read, "Agrees to pay \$600 for 48 local messages."

We had a salesman so persistent that the prospective subscriber wrote to the District Manager asking that the man be detailed on other prospects at intervals. He said such persistence would build the Panama Canal.

Little did the salesman, who saved a station by suggesting that the minister subscriber use excess calls to call up absentees from church, anticipate that he would be urged by telephone to attend.

It isn't often that a subscriber is so credulous as this, but it has happened. One subscriber sold his business to an acquaintance and told him that the telephone coin-box belonged with the store equipment. The new owner detached and brought in the coin-box to the Company to buy, as he thought he preferred message rate service.

Our salesman had been told to call on Mr.

because he often used his neighbor's telephone. The reason why Mr. ———— didn't want service was because he was afraid he "would be annoyed by the neighbor's use of it!"

To save a bedroom station at a residence where there was no stand the suggestion was made that the wall set be fastened to the headboard of the bed. This proved to be a most satisfactory location and the cancellation was recalled.

When one subscriber moved away and a new tenant came, our representative called to obtain an application. The woman, who was afraid of the telephone, had disconnected it. Upon stating his errand the woman left him a moment and returned with the telephone.

A colored subscriber who had both business and residence service was so hard pressed in his own business that temporary disconnection was necessary. When our collector called and stated the case, the subscriber told him to keep the business telephone disconnected and to apply the small payment to the residence telephone, as his wife absolutely demanded the convenience.

Slight Misconception

A washwoman called weekly at a suburban residence where there is telephone service. One day her friend telephoned and asked the house matron if he could speak to Miss ———— (giving the washwoman's name). When she was notified she insisted upon putting on a clean apron and brushing her hair before talking.

The aged mother of a subscriber was very much averse to using a telephone. One day when someone wanted to talk with her, she was found with the cord over her ear and the receiver hanging below her waist. She complained that she couldn't hear and thus brought aid.

"There, I meant to give her that handkerchief that she left here," said a rural subscriber as she hung up the receiver.

In using a public telephone one man put his

coin in the slot of a near-by candy machine and a woman put hers on the small shelf of the wall set. When approached for residence service another woman said she had a telephone downstairs. Investigation showed that she referred to the coin-receiving device of the gas meter.

Another old lady, in a home where service had just been installed, was entertaining a friend, when the telephone bell rang. She stood in front of the wall set and, without lifting the receiver, said, "Nobody home, nobody home!" When the guest said that this accomplished nothing, she replied, "Oh yes, it does; sometimes they ring several times, but I say the same and they always stop after a while."

The little boy who read "Moses, 4000" in his Testament was surprised that it referred to his birth year. He thought it was his telephone number

"Please speak a little nearer to the operator," said a German, "I can't make out your voice."

A woman—wife of a new subscriber—had used a toll line twenty minutes. When told the amount of the charge she was surprised and said that if the operator would bill her for only one call she would "never do it again."

Christian Science by telephone has been practiced according to the papers. It is stated that the operators don't know whether to disconnect or not when the lines are held for a long time without so much as a word being spoken.

Annoyed by having customers use their message rate telephones, one subscriber had his station fastened near the ceiling. He used a ladder to make and answer calls; another had his station fastened at a position which required the user to be halfway between the standing and the sitting posture. Both seemed much relieved when these changes were made.

Mr. —— requested that his telephone beremoved to the cellar during his absence from the city to keep the bill at a minimum during his absence.

A telephone installation in a large store icebox caused newspaper comments in one city.

Complaints

We would term the woman easily convinced who believed that ground gas in her cellar came over the telephone wires. She said that a gasman had told her the cause.

Poles should be removed from our streets, according to one newspaper, because they are dangerous to automobile riders.

Instructions for installing a small switchboard resembled a brindle cow more than anything else, wrote a rural line representative to the Western Electric Company.

A cuckoo clock which had just been hung in the hallway necessitated the rearrangement of one telephone bell-box.

The removal of telephone ground wires was done by a resident, who then telephoned from another station that his service was out of order. He had used the ground wires to fasten up the heater pipes, and was unaware of their use in telephony. Another man removed the batteries for use in his automobile.

Signs

"NOTIS

Alle Speches Caust five cents each by order offe" read a sign on a message rate telephone.

"Phome," "Fone," "Long Distance Telaphoan' and kindred signs are common sights.

Admiral Schley is said to have been so courteous that he unconsciously removed his hat when talking by telephone to a woman.

"About so wide," said a gesturing country storekeeper in ordering a few bolts of woolen cloth by telephone.

It was an accommodating subscriber who offered to take the instrument home with him. He had just signed an application and wanted the service at once, but didn't want to bother the telephone man to bring the telephone out to his home.

Odd Uses and Locations

The telephone relieved a worried man one Sunday morning. As he passed in front of a downtown office his false teeth dropped out and disappeared below the sidewalk grating. A telephone call brought the janitor and the day was saved.

Men aren't the only ones who get in odd predicaments. Mrs. Society was dressing for a social function when her maid flared up and left. As the tight dress simply had to be hooked up Mrs. S. telephoned for a messenger boy and went in triumph to the afternoon event.

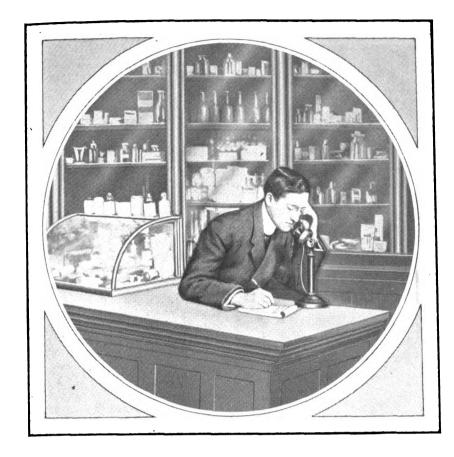


Special Window

Display at Reading, Pa.

(See Reading District News on page 14)

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Want Ads by Telephone

A visit to the office of the Classified Advertising Manager of The Evening Bulletin, Philadelphia, at about 10.30 in the morning will find him surrounded by a dozen young women sitting at as many desks, busily typewriting from telephone dictation. At first one might think that this is a telegraph recording table. The general method of operation is similar, although the equipment is somewhat different. The desks are of mahogany and much larger than those used for telegraphic purposes. They are surmounted by glass partitions to confine the noise, and transmitter arms are used instead of chest transmitters. These young women are receiving classified advertisements as they come in over the telephone from about 500 branch offices and from various subscribers' stations throughout the city. The majority of the branch offices are located in drug stores. This method of receiving "want ads" is not new, having been used by this particular paper for about ten years, and it has proved so eminently satisfactory that far more than half of all the classified advertisements are received by telephone.

There are four ways in which an intending advertiser may get his "want ad" in the Bulletin: He may deliver it to the Bulletin office, he may mail it in, he may hand it to any one of the Bulletin's 500 agents, or, finally, he may telephone a "Help Wanted," "Lost" or "Found" advertisement direct to the newspaper's receiving office.

In both of the two last-mentioned methods the telephone is employed, as the Bulletin's agents are instructed to telephone all advertisements to the newspaper immediately upon their receipt.

Employees of

"The Evening Bulletin"

Typewriting "Want Ads"

Received over the Telephone

Illustration at Top of Page Shows Philadelphia Druggist Transmitting Customer's "Want Ad" to "The Bulletin"

Probably everyone has at some time had occasion to make use of the classified columns of a newspaper, but these occasions arise without any regularity and often with very little warning. We never know beforehand that we are going to leave our best timbrella in the street-car and very often we don't: get the full legal notice of the contemplated departure of the cook. Admitting this, we must also admit that the particular group of people to whom this kind of service most appeals is not the same to-day as it was yesterday. In other words, the list of live prospects is a constantly changing factor. The Bulletin has devised a novel plan of spending its advertising appropriation where it will do the most good. Attractive mailing cards are sent out in the first mail each morning to the "Help Wanted" advertisers in the classified sections of the Philadelphia morning papers (the Bulletin is an evening paper), explaining that provided the wanted servant has not been obtained the advertisement may be inserted in the Bulletin of the same day if it reaches the Bull.etin office before 11 A.M. "Lost" and "Found" activertisements are handled specially and are received until late in the afternoon for publication the same day, those which are received too late for classification being run on the front page of the paper. The subscriber is urged to dictate his advertisement over the telephone to the trained operator and, to encourage this practice, the Bulletin extends credit to all telephone subscribers and renders a bill for the service after the insertion of the advertisement. This plan of campaign, made possible by the special telephone equipment which we have described, has produced gratifying results, and on the day when the representative of THE TELE-PHONE News called at the Bulletin office he was informed that an order had just been placed for additional equipment.



"In Philadelphia Nearly Every body
Reads THE BULLETIN"
Mailing Card Featuring the Tele phone



Our Societies

The Philadelphia Telephone Society

Scottish Rite Hall, Broad and Race Streets. April 1, 8 P.M.

Speaker: W. A. Eipper, Supervisor of Maintenance, Philadelphia.

Subject: "Telephone Maintenance and Some Recent Improvements in the Art.'

The Pittsburgh Telephone Society

Jenkins Arcade Building. March 28.

Speaker: Springer H. Moore, Counsel. Subject: "The Way a Lawyer Sees It."

The Cross Talk Club

Kugler's, Philadelphia. April 8, 6.15 P.M.

Speaker: F. I. Daly, Assistant Secretary and Assistant Treasurer.

Subject: Not announced.

The New Castle Telephone Society

At a meeting of the New Castle Telephone Society held recently, Mr. S. B. Ridge spoke on "Human Ethics of Telephony."

At the meeting held March 7 the speaker was J. K. Martin, and his subject was "Rural Line Maintenance." Representatives from Connecting and Plan "A" Companies were present.

The Trenton Plant Club

The next meeting of the Trenton Plant Club will be held on April 10 at 218 E. State Street. Mr. J. A. Mann, Assistant to the Supervisor of Supplies, Plant Eastern, will address the meet-

The subject will be "Supplies."

Monongahela Valley Telephone Club

At the regular semi-monthly meeting of the Monongahela Valley Telephone Society, held Friday evening, March 14, the subjects of trouble clearing and reporting of time and material on work orders were discussed.

This society's meeting place is Charleroi, Pa.

Electrical Aid Society

Mercantile Hall, Broad and Master Streets, Philadelphia.

Tuesday evening, April 15.

Twenty-fifth anniversary, with entertainment and banquet.

The members of this society are employees of the telephone and telegraph companies, those engaged in electrical work with the railroad companies and with the Electrical Bureau of the City of Philadelphia.

A vaudeville entertainment will be presented at the annual meeting, together with a souvenir booklet containing a historical sketch of the society since its foundation. The proceeds from this entertainment will be devoted to the society's relief fund. The chairman is C. A. Huver of the Electrical Bureau, and the Secretary is R. II. Conway of the Pennsylvania Railroad Company. Broad Street Station, Philadelphia.

The Bell Triangle Club

On March 6 "The Bell Triangle Club," of the Allentown District Commercial, Plant and Traffic departments, was organized. There were 122 employees present, and 168 employees returned their applications requesting membership. rousing meeting was held and the following officers were elected: Geo. W. Wolf, Local Manager, Allentown, President; A. Markel, Plant, Allentown, Vice-President; Miss Prendergast, Chief Operator, Bethlehem, Secretary; S. M. Palm, Plant Supervisor, Allentown, Treasurer.

There were twenty-five names submitted for the name of the society, three of which were selected to be voted for, namely, The Universal Service Society, The Lehigh Valley Telephone Society, The Bell Triangle Club.

The latter name was selected. The three points of the triangle represent the three departments, also the three important cities of our district. namely, Allentown, Bethlehem and Easton. The insignia is a triangle, in the center the seal of our Company, and in the three corners the letters B. T. C.—The Bell Triangle Club and The Bell Telephone Company.

Mr. E. J. Coover, District Manager, addressed the meeting, stating its object and the results we expect our association will produce. Particular stress was laid on the suggestion books and their object. These books were distributed to all employees. An exact record will be kept in each office of suggestions submitted, and bulletins announcing the totals will be posted each week. Addresses were also made by S. M. Palm, C. Bucknor, Jr., and Local Managers Wolf, Howard and Waltman.

The question box will be an important factor in our future meetings, and general discussions of matters pertaining to relationship and mutual benefits of interdepartment work will receive attention.

Suitable quarters were chosen, and the meetings of the society will be held on the third Thursday of each month.

Collection Efficiency

Per Cent. of Amount Outstanding to Total Amount **Billed for Current Month**

FEBRUARY, 1913.

Philadelphia Division

| Collection Office | | Per Cent |
|-------------------|-----|----------|
| Philadelphia, Pa | | .28.7 |
| Germantown, Pa | | |
| Chester, Pa | | |
| A (1) | T > | |

Atlantic Coast Division

| Norristown, Pa | |
|----------------------|--|
| Doylestown, Pa20.7 | |
| West Chester, Pa27.8 | |
| Trenton, N. J | |
| Dover, Del | |
| Wilmington, Del | |
| Bridgeton, N. J | |
| Camden, N. J | |
| Atlantic City, N. J | |

Harrisburg Division

| Lancaster, Pa 8.6 |
|-------------------|
| Huntingdon, Pa |
| Altoona, Pa |
| Ridgway, Pa |
| Carlisle, Pa |
| Sunbury, Pa |

| rer Cen |
|----------------------|
| Emporium, Pa |
| Williamsport, Pa 179 |
| Bethlehem, Pa |
| Bloomsburg, Pa |
| Berwick, Pa |
| Nanticoke, Pa 21.1 |
| Lock Haven, Pa |
| Scranton, Pa |
| Reading, Pa |
| Bellefonte, Pa |
| Easton, Pa |
| Lewistown, Pa |
| Allentown, Pa |
| Towanda, Pa24.9 |
| Wellsboro, Pa |
| Carbondale, Pa25,6 |
| Wilkes-Barre, Pa |
| Honesdale, Pa |
| Pittston, Pa |
| York, Pa |
| Coudersport, Pa |
| Hazleton, Pa |
| Clearfield, Pa |
| Harrisburg, Pa |
| Shamokin, Pa |
| Lebanon, Pa |
| Pottsville, Pa |
| Wavnesboro, Pa |
| Chambersburg, Pa |
| D |

Collection Office

| Pittsburgh Division |
|--|
| Carrolton, O. 4.5 Warren, Pa. 15.8 Morgantown, W. Va. 18.3 Bradford, Pa. 18.4 Latrobe, Pa. 20.5 |
| Corry, Pa. 21.4 Franklin, Pa. 21.5 Scottdale, Pa. 22.8 Cambridge, O. 23.1 Youngville, Pa. 23.6 Greensburg, Pa. 23.9 East Liverpool, O. 26.4 McKeesport, Pa. 27.3 Sistersville, W. Va. 27.5 Indiana, Pa. 28.5 |
| New Kensington, Pa. 29.0 Punxsutawney, Pa. 29.0 Charleroi, Pa. 29.9 Wheeling, W. Va. 30.5 Salem, O. 30.7 |
| Warren, O |

Parkersburg, W. Va......117.3

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H. N. Reeves

Supervisor of Equipment, Philadelphia Division

H. N. Reeves, who was appointed Supervisor of Equipment on March 10, first started in telephone work in 1899. In February of that year he entered the employ of the old Delaware and Atlantic Company as switchboard and subscribers' station installer, reporting to J. C. Breban, then General Inspector and Superintendent of Equipment. During the next two years Mr. Reeves worked in different parts of the Delaware and Atlantic territory, and in July, 1900, he was made Switchboard Inspector of the Norristown District. He remained at Norristown until April, 1901, when he resigned from the Telephone Company to go in business for himself. In January, 1902, however, Mr. Reeves re-entered the telephone business as a second-class installer for The Bell Telephone Company of Philadelphia. After general experience in the various districts in Philadelphia he was made a first-class installer, and in October, 1905, a Senior Installer, Germantown District. In June, 1906, Mr. Reeves was promoted to Senior Foreman and a few months later to District Foreman, with headquarters still at Germantown. In February, 1910, he was transferred from the Germantown to the Central District, and in October of the same year he was made Special District Foreman. In January, 1910, the title and work of the Supervisor of Supplies, Philadelphia Division, was also given to him. He remained in this twofold position until his present promotion.

Inauguration Traffic

The number of telephone calls handled in Washington, D. C., on March 3 and 1 exceeded all records and expectations. It had been estimated that it would be necessary to handle approximately 400,000 calls a day on these two days, but records show that the total calls handled reach the amazing total of 500,000 a day. In order to care for this two-day peak 33 positions were added to the "A" board and nine positions to the public telephone board of the main central office. The Washington operating force was increased by 23 operators from the Baltimore central office. Long-distance traffic showed an increase of 54 per cent. and traffic between Washington and Baltimore an increase of 100 per cent. Emergency stations were installed at several points along the route of the parade, and that they were appreciated was shown by their almost constant use.

This was the first Inauguration since the completion of the Washington-New York underground lines. We fear that if the truth were known, some of our Engineers did not pray for fair weather, that they dared the elements to do their worst, even to repeating the blizzard of four years ago. As we all know, there was no storm of any kind, and it will be necessary to wait at least four years more before we can feel anything more than the satisfaction of being prepared.

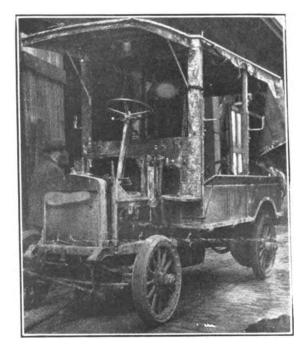
Telephones in Orient

AW. E. telephone system has just been installed in Jerusalem by the Ottoman government for its own use. There are ten stations connecting the government house with the courthouse, military headquarters and several police stations. Application has been made for a public telephone service in Jerusalem, Jaffa and Bethlehem.

Motor Truck Damaged by Fire

The motor truck shown herewith is one of several large trucks formerly owned by the Company. It was seriously injured by fire some time ago, as the picture shows. The exact cause of the fire is not known, but the circumstances were substantially as follows:

In filling the gasoline tank of the truck, the funnel contained more gasoline than was necessary to fill the tank. An overflow resulted and a quantity of gasoline dripped on the engine beneath. In starting the engine immediately afterward the chauffeur advanced the spark too far and the engine back-fired. The space beneath the hood was at once filled with flames. Although each motor vehicle is supposed to be equipped with a fire extinguisher, none was available on



Company's Truck Damaged by Fire

this truck because the extinguishers ordered had not yet been received. Liberal doses of sand were applied but proved ineffective, and the fire was finally put out by a chemical engine of the Philadelphia Fire Department.

Apparently this accident might be charged to three causes:

1. The chauffeur neglected to estimate the amount of gasoline necessary to fill the tank.

2. The chauffeur also neglected to wipe off from the engine and other parts the gasoline which overflowed.

3. The spark was advanced too far before the engine and "back-firing" resulted.

The resulting damage was considerable and forcibly emphasizes the value of extreme care in the handling of motor vehicles, and more specifically in the filling of gasoline tanks.

Mr. S. P. Grace Speaks

Before the Philadelphia Electric Company Section of the National Electric Light Association, Mr. S. P. Grace, Engineer of Outside Plant of our Company, read a paper on "The A B C of

Telephony," March 17.
Mr. J. C. Nowell was to have addressed that society but his departure for San Francisco made it impossible. The place of meeting was at the Franklin Institute.

Organization Changes

The Bell Telephone Company of Pennsylvania

Paul Nicoladsé, Traffic Inspector, West Philadelphia and Main Line Districts, to Traffic Supervisor in charge of Poplar, Diamond and Kensington central offices, vice H. W. Peacock, Jr., resigned.

E. Baldwin Edwards, Service Inspector to Traffic Inspector, West Philadelphia and Main Line Districts.

A. C. Somers, Stenographer, Plant Department, Philadelphia Division, to Plant Superintendent's Office, Philadelphia.

Harry Cline, Blueprint Clerk to Clerk, Seventeenth and Filbert to Cable Division.

J. Greene, Lineman to Central Office Wireman, Belmont Equipment to Seventcenth and Filbert Equipment.

Frank Kahnell, Repairman to Foreman, Erie District.

J. R. Lampus, Supervisor of Equipment to District Equipment Foreman, Erie District.

D. C. Chisholm, Supervising Line Foreman to District Line Foreman, Erie District.

L. B. Garrison, Engineering Inspector to District Engineer, Harrisburg, Pa.

H. Lewis, Central Office Man to Plant Wire Chief, Reading, Pa., to Pottsville, Pa.

C. McKeon, Groundman to Climber, Scranton, Рa.

M. Campbell, Cable Helper to Cable Splicer, Scranton, Pa.

E. T. Gallagher, Climber to Repairman, Bradford, Pa.

Paul R. Scheuneman, Inspector, Engineering to Plant, Pittsburgh Division.

Mildred Gould, Groundman to Climber, Erie District.

H. W. Martin, Clerk, Erie, Pa., to J. R. Masterson's Crew.

Thos. J. Flynn, Climber to Clerk, J. R. Masterson's Crew to D. J. Lilley's Crew.

Harry Ellwanger, Groundman to Climber, Eric

E. A. Lynch, Groundman to Climber, Erie District.

The Central District & Printing Telegraph Co.

C. G. Munshower, Groundman to Climber, Pennsylvania District.

D. C. Dutton, Groundman to Climber, Pennsylvania District.

H. L. Wonsettler, Repairman to Central Office

Man, Canonsburg to Washington, Pa.
M. H. Jones, Lineman to Climber, Pittsburgh

M. J. Bernarding, Central Office Man to Installer, Pittsburgh District.

C. E. Smith, Storekeeper to Clerk, Wheeling District Plant Chief to Plant Supervisor's Office.

C. E. McMillin, Repairman to Splicer, Marietta, Ohio, to Cable Crew, Wheeling District.

Don Knox, Clerk to Assistant Wire Chief, Marietta, Ohio, to Parkersburg, W. Va.

Chas. Simms, Central Office Man to Repair-

man, Parkersburg, W. Va. Benj. F. Tracy, Installer to Central Office Man, Wheeling Short Line Crew to Morgantown, W.

Leonard Borrmann, Shop Repairman to Store-

keeper, Wheeling, W. Va. W. D. Hoover, Lineman to Climber, Wheeling

W. B. Thomas, Groundman to Climber, Wheeling District.

W. Mason, Wire Chief to Specification Writer, Pittsburgh, Pa.



Isaac Roland Datt, Installer to Draughtsman, Pittsburgh, Pa.

W. H. Swaney, Assistant Wire Chief to Wire Chief, Steubenville, Ohio.

C. G. Shontz, Inspector to Installer, Pitts-burgh, Pa

F. E. Abel, Lineman to Climber, Pittsburgh District.

Geo. Stinton, Groundman to Climber, Pittsburgh District.

Otto Black, Climber to "B" Foreman, Pittsburgh District.

Robt. Sterling, "B" Foreman to Line Order Foreman, Pittsburgh District.

Franklin K. Stewart, Plant School to Assistant Wire Chief, Pittsburgh District.

C. A. Nevel, Groundman to Climber, Pennsylvania District.

Clarence Donelly, Lineman to Climber, Pennsylvania District.

Chas. Henderson, Groundman to Climber, Pennsylvania District.

M. E. Kahle, Groundman to Climber, Pennsylvania District.

Wm. Hillegass, Groundman to Climber, Penns Ivania District.

C. T. Hollingeworth, Groundman to Climber, Pennsylvania District.

L. C. Thurston, Groundman to Clerk, Pennsylvania District.

D. T. Zimmerman, Groundman to Climber, Pennsylvania District.

John Shindle, Repairman to Climber, New Castle, Ra.

Geo. T. Euchm. Clerk to Draughtsman, Pittsburgh District.

N. Callaghan, Groundman to Climber, Wheeling District.

Chas. Cooper, Repairman to Climber, Wheeling District.

H. G. Cross, Foreman to Repairman, Steubenville, Ohio.

Thos. J. Nettleton, Repairman to Toll Repairman, Steubenville, Ohio, to Wheeling, W. Va.

F. J. Roth, Toll Yepairman to Repairman, Wheeling, W. Va.

John Glitch, Installer to Shop Repairman, Wheeling, W. Va.

E. J. Kunkle, Lineman to Climber, Pennsylvania District.

Robt. F. Grove, Groundman to Climber, Pennsylvania District.

H. C. Blackburn, Groundman to Climber, Pennsylvania District.

G. F. Davis, Repairman to P. B. X. Representative, Sharon, Pa., to Warren, Ohio.

Paul Eisaman, Repairman to Climber, Pittsburgh District.

J. R. Walton, Assistant Foreman to Assistant Storekeeper, Pittsburgh District.

Paul F. Cole, Installer to Assistant Night Central Office Man, Pittsburgh District.

W. I. Beck, Cable Record Clerk to Clerk, Pittsburgh District.

J. C. Peth, Central Office Man to Installer, Pittsburgh District.

S. E. Warrick, Salesman, Punxsutawney to Dubois, Pa.

P. Jones, Chief Clerk, Cedar District to Pittsburgh District.

Harold B. Porter

Plant Superintendent, Harrisburg

AROLD B. PORTER, who on March 10 was appointed Plant Superintendent of the Harrisburg Division, was born in Philad lphia in 1875. His education was obtained at the Germantown (Philadelphia) Academy and the University of Pennsylvania, where he took a course in Electrical Engineering.

After leaving the University, Mr. Porter was for two years and a half engaged in the export business in New York City and for one year in the insurance business in Philadelphia.

Mr. Porter first entered the telephone business in January, 1899, as apprentice inspector. In a short time he was made an inspector and soon



HAROLD B. PORTER
Plant Superintendent, Harrisburg

after that promoted to test-table work. In July, 1902, he became Assistant Wire Chief at Germantown. In September of that year he was transferred to "Franklin" central office in the same capacity. That office then served the territory now served by Spruce and Locust central offices. A second transfer took him to Frankford, and in April, 1903, Mr. Porter became Wire Chief at Germantown. He remained at Germantown until August, 1905, when he was promoted to the position of Assistant Engineer in charge of buildings. The title of this position was later changed to Engineer of Buildings. In November, 1910, Mr. Porter was promoted to Supervisor of Equipment, in which capacity he acted until his recent appointment as Plant Superintendent, Harrisburg.

New Business from Suggestion Slips

Harrisburg District Gains

In the Harrisburg District over \$625 worth of new business was obtained during February from suggestion slips sent in by the following employees:

Carlisle.—W. C. Line.

Harrisburg.—H. J. Hain, A. A. Harrow, Helen D. Miller, C. L. Marzolf, Annie McCoy, G. McAllister, Mary Lick, Roy Stambaugh, Wm. Fitzpatrick, R. J. Miller, Alma Yost.

Lancaster.—Mrs. S. S. Farver, Emma Herzog, J. E. Immel, Rose M. Kirchner, E. P. McKinney, S. Sekinger, S. D. Wissler.

York.—M. J. Allison, Frank Cunningham.

Work of "Bell-Grow" Club

From slips submitted by the following members of The "Bell-Grow" Club, \$1730 worth of new business was secured in the Reading District during February:

Reading.—Ethel T. Bicking, May N. Brown, Esther H. Werner, Carrie M. Shirk, J. M. Hykes, J. L. Printz, Robert Kerper, Clara Grim, E. W. Ulle, E. Haring, H. D. Mercer, Mabel L. Williams, Ella E. Weaver, I. M. Pflugfelder, Carrie Wagner, Maud Chandler.

Boyertown.— Bessie Henry, Bessie Mountjoy.

Sinking Spring.—Ruth Wamsher. Hamburg.—Allen Shomo, H. (). Hohl, Harry P. Wagner, E. P. Laird,

Samuel Beggs, G. C. Kessler, H. Freise, H. T. Albright, W. L. Nagle, I. J. Keller, F. S. Koch, Clifford Fawcett, J. R. Leary, H. Gaul, H. A. Spatz. Mt. Carmel.—Margaret McAndrews, Mary Davis.

Shamokin.—Ada Koch, Dorothy Reese, Gertrude Evans, Estella Rohrbach, Mame Yordy, E. B. Beebe, H. T. Morgan.

Pottsville.—Nellie R. Coonan, Kathryn G. Corcoran, C. Freehafer, Mae Armstrong, Miss Linder, Mary Downey, P. W. Yocom, Marguerite Yocom, Ruth Yocom, Mary Albright, Helen Wilson, Mary Siebenkaes, Adelaide Brown, Miriam Houser, Marion Sieger, Meta Hartman, Harriet Wagner,

Linda McMillan, J. Donder, P. Haaskarl, L. Nayberry, H. Karbel, L. Sterner.

Lebanon.—Maud Turner, Lillian Heilman.

Lebanon.—Maud Turner, Lillan Helmann Laura Eiler, Helen Radams, Lydia Radams, Mabel Beck, Clare Matthews, Margaret Mack, R. W. Bressler, W. H. Burkhard, Geo. Levengood, Eugene Heisey, H. Harp, Geo. U. Schock, M. L. Kerr.

Gains in Eastern Division

From the suggestion slips of the employees of the Plant Eastern Division \$2573 in new business was obtained in February. The largest amounts of additional revenue resulted from the slips submitted by the following men:

F. Anderson, H. E. Hack, F. Helmick, B. D. Murdaugh, H. A. McIlwain, I. J. Garis, F. Lyons. H. E. Morris, C. J. Conners, J. V. Donohue, R. L. Allen, A. Jackson, T. H. Smith.

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By G. E. Gable

VER in the western foot-hills of the Alleghanies and two railroad hours from Pittsburgh, that busy city has a miniature counterpart.

Do you know Johnstown? Some towns are known and understood better by the world outside from school histories and industrial journals than by their own inhabitants. Do you know its clean streets, its atmosphere of hustle and progression, the smoke from its score of furnaces by day and the lurid glare of molten iron which spreads a glow over its housetops by night? And do you know that just a little while ago Johnstown found its voice—an electrical voice which now reaches out across the mountains on one side and far across the plains on the other—a development which has made it a consequential center in the great network of seven and a half million telephones in the Bell System? Well, then, here's the story.

An encircling chain of hills and a junction of two small rivers give it a setting like a miniature Pittsburgh, and here, back about Revolutionary times, an Indian village, called Connemaugh, thrived. Here, then, there were real war dances one hundred and thirty-five years ago, and here the Indians came back from conflict to proclaim their victories.

The Founding

To this village there came, in 1789, one Joseph Johnn, a German settler. He managed pretty well with the Indians, other settlers soon joined him, and eventually coal and iron came to be the industry of the growing village.

Then, in 1803, General Arthur St. Clair, of Revolutionary fame, built the Hermitage Furnaces somewhere near the present site of the railroad sta-

(Continued on page 3)



THE TELEPHONE NEWS

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No. 8

Flood News

8. OMPREHENSIVE treatment of the floods and of the devotion to duty and ingenuity of some of our employees will appear in our next issue.

A Word of Encouragement

THE Public Ledger of Philadelphia says editorially:

"How often after a play, a sermon, a concert that has stirred us we feel the impulse to make known to actor, preacher or musician what it has meant to us! Yet how often the impulse perishes as the warm glow of the instant's inspiration wanes—like a rill of water that runs aimlessly to waste in desert sands and is lost.

"It is so easy to let the word of enthusiastic appreciation remain unspoken -perhaps by a trivial accident, such as the absence of pen and ink to serve our inclination. But had we written, had we said the word, it might have been just the lift that was needed toward the light and the air and life itself for a soul that struggled.

"We think the eminent men and women so strongly poised, so independently secure, so braced and fortified that they need no limping phrase of ours to bring them succor; but it is not so. Just because most people do not think-or else think and then forget—the one who gives generous rein to the feeling aroused, in the presence of the one who has aroused it, is a comfort and a reinforcement more than is realized except by the tired, grateful heart that is comforted. 'Encouragement' literally means putting a heart in a person. That is what the timely letter or spoken words may do. . .

"Anyone may leave unsaid the timely word. Blessed is that man or woman who says it."

Ubiquity Again

TOT even those who are accustomed to taking for granted the conveniences of modern life will be able to overlook the telephone's part in some of the happenings of the past month. The cheering words which it carried to relatives and friends of the flood survivors in the Middle West are only further examples of its magical work.

A very unusual service, moreover, was noted in the newspapers in the latter part of March. Two outlaws of a notorious mountain region in Virginia were about to be executed for murder. The Governor was absent and the executive work was in charge of his Lieutenant. Suddenly friends of the convicted men appealed to the Lieutenant-Governor, and it was understood that he was about to commute the sentences to life imprisonment. The son of the Governor telephoned and within a few hours the executive, who had previously refused a stay of execution, was again on Virginia soil and had announced that he was on his state's soil and would at once assume official duties. He hurried to the State House and postponed his visit until the men had paid the death penalty for their high-handed acts.

Surely the telephone's part in the world's progress is unlimited.

First Impressions

T the very moment I enter an outer office and before I am invited into the private office of anyone whom I am to see, I can form a fairly accurate opinion of the boss," said an experienced worker, the other day. "His system, or lack of it, is reflected in the accessibility of the site which he has chosen for a business place, the building signs, the attitude of the office employees delegated to receive visitors, the condition of the furniture, and even the use or nonuse of labor-saving devices."

Did it ever occur to us that those with whom we are doing business every day may be as close observers as this caller! He represented another large company doing a world-wide business with people as diverse as those whom telephone service aids. He had benefited by his own observations, had experienced the pleasure of having the idea carried out in his own office, and had decided, after a trial, that it was all worth while.

We may not be able to choose office locations because of the nature of our plant, but we may perhaps benefit by the other suggestions of our observing friend.

The Busy Man

/OU have often heard the saying: "If you want a thing well done, take it to a busy man." The client who has an important case doesn't take it to the lawyer who has the most time to spare, but to the attorney who is busiest; not because he is busy, but because the client knows that nine times out of ten the man who is busy is the man who can always find time to accomplish what he has to do.

The man who has time to waste is the man who most often puts things off until to-morrow and to whom we hesitate to entrust our important commissions.

We do not believe that the longer a man is kept in his office after five o'clock the more efficient he is. In fact, the contrary is usually true. Nor do we believe that the man who is always rushed and whose desk resembles a badly kept storehouse is the efficient man. But the man who is calmly busy from 8.30 until 5 (or whatever his prescribed hours for work are), usually upon some more or less flexible schedule, is the man who gets sixty minutes' value out of every hour.

Plain English

ID you ever stop to think how many phrases we use in a technical way that are unintelligible to the subscribers with whom we may be talking? We speak of "P.B.X.es," subscribers loops, spares, "2 P.L. Flats," getting "D.A.'s," and occasionally we even mention "M.D.-ing" certain lines. The emplovee who may have used any of these expressions in talking with a subscriber has no idea of the confusion his terms may have caused unless the subscriber asks him point-blank what he means.

Sometimes, when subscribers are quite familiar with our terms, the saving in time, by using these terms, is of course warranted; at other times it may be quicker to talk in familiar terms to the initiated.

Are we arriving at a time when clear and concise phrases will come into common use, or will our phrases and abbreviations then be so generally understood that there will be no confusion?

Whichever may appear most likely to occur, it is offered merely as a suggestion that all subscribers are not to be expected to know our technical terms, and then hesitancy in granting permissions or in accepting our statements may be overcome by a gradual adoption of plain terms when speaking to them about telephone



The Johnstown Campaign (Continued from page 1)

tion, and half a dozen years later the business of producing iron began with the forming of the Cambria Iron Works Company, and they built a number of widely separated charcoal furnaces.

Of course the products and supplies were all transported by wagons, but the operation marked the beginning of ironwork in this country. Nowadays Johnstown is popularly known as the city that was razed by one of the most disastrous floods of American annals, or, in a more restricted way, as the home of Cambria steel. As a matter of fact, however, it had won fame long before that in one of the most interesting sides of an all-but-forgotten phase of our national growth.

The Pennsylvania Canal

In 1826, Pennsylvania, looking with envious eyes upon the big ditch that her neighbor, New York, had built across her empire, decided to emulate her glory and build a canal. The result was the Pennsylvania Canal, the Alleghany Portage Railroad, a state debt of \$40,000,000, a boom for Johnstown, and, incidentally, the commercial



J. A. Collette, the Traffic Supervisor

salvation of Pittsburgh which had been languishing for more than a decade.

Because it did not seem feasible to cross the backbone of the Alleghanies the canal was built from Columbia on the Susquehanna to Hollidaysburg near Altoona, and from Johnstown to Pittsburgh with mechanical portage over the mountains.

The pioneer engineers did their work well though they did not know that they could lay a practical curve with railroad iron, but according to their "lights" they worked wonders. The portage railroad was a series of ten plains and eleven levels, the total length of the railroad was thirty-six miles, and the time required for taking a car over the route was about eight hours, or about as long as it now takes to make the whole trip from Philadelphia to Pittsburgh.

Johnstown became a pretty busy place after that and its list of three hundred inhabitants grew to five hundred, a thousand, and thirteen hundred in about 1850, when Charles Dickens came through on his tour from England to escape dyspepsia; and his story of the trip across the mountains is characteristically interesting. The canal, however, was but short-lived and in a year the Penn-



"The switchboard had not only been enlarged, but had been rearranged so that the telephone traffic might be handled easily and efficiently."

Miss Elizabeth Hicks, the Chief Operator, in charge

sylvania Railroad had built its way around the "Horseshoe Curve" and into Johnstown when that company bought the canal complete. Then Johnstown lost its importance as a port; its harbor was no longer the sign of busy shipping, its fleet of boats and ships was gone, and it became a way station on a great railroad system.

In the meantime England had furnished all the rail for American railroad building, because rails were then subject to no duty. But about 1870

Of the flood, of course, it is probable that we can here add but little to the knowledge which is common. It cost 2142 lives and \$10,000,000 worth of property. Some three thousand buildings were destroyed, and to-day there hang in certain public places clocks whose pendulums have not swung for twenty-four years. Their hands point to a few minutes after four, the time when they were tumbled from their shelves by the waters of the great flood.

Now to sum up this bit of history in a word

building, a three-story plant which is still occupied.

Early in 1912 The Johnstown Telephone Company had a subscribers' list said to total some six thousand, and the Bell telephones in service at that time numbered about nine hundred. In May, at the request of a number of prominent citizens, this company undertook an energetic campaign with a view to making Johnstown a more consequential factor in its chain of communication



Grace Hanley, Marie Hart, Bessie Gray,

"A class of fifteen young women for the training which would graduate them as telephone operators." Ellen Van, Elizabeth Hockstein, Miss D. T. Deering, Teacher, Rachael Ogden, Burnetta Conrad, Viola Cuppett, Frances Repp. May Knee, Garnet Lambert.

Daisy Dennison,

Ethel Yahner,

Althea Williams,

Ruth Spahr

they were taxed to the extent of twenty-eight or two. Johnstown and the towns surrounding dollars a ton, and the Cambria Company began their manufacture. This just about "made" the Cambria, and the town grew from kilts to knickerbockers and on to young maturity more rapidly as a steel center than it had as a port.

The Great Flood

It is by a curious quirk of fate that the source of Johnstown's early importance and fame should be indirectly the cause of its later and sadder bid for a place in history. For it was the Pennsylvania Canal that brought the town its importance in the 30's and 40's, and it was the storage reservoir, built to supply that canal with water, that sent down the valley the bore of water that overwhelmed the town in 1889.

now have a population of nearly 100,000. There are more than 20,000 men employed by the Cambria Steel Mills alone and more than 10,000 in the mines tributary to the city. Johnstown has an annual payroll of nearly \$20,000,000 and the tonnage is some 15,000,000 tons.

The telephone, of course, came in its logical place in the development of the city, and in 1895 there were one hundred Blake telephones in service. In June of the same year a group of the citizens went into the telephone business under their own auspices and the name of The Johnstown Telephone Company, with 175 subscribers. Five years later they rebuilt the plant and installed a common battery system in their own

which now reaches 7,500,000 stations in some 70,000 towns, a number which is greater by 5000 than the number of United States post offices.

At that time the Bell Telephone plant, while thoroughly modern, was only sufficient in size to provide for a thousand or fifteen hundred subscribers, or large enough for a properly telephoned city one-tenth the size of Johnstown. The first thing to be done, then, was to make this plant adequate,-make it such that any person in Johnstown could be provided with Bell service.

Telephone "Foundation" Work

With this in view, an army of construction men was set to work and for more than a year the job went on. New poles were set, more cables were erected, the underground plant was enlarged, the operating room in the Franklin Building was increased in size and several sections were added to the switchboard, so that when the Plant Department finally said, "We are ready," Johnstown could boast of one of the finest, most complete telephone plants in the country. The switchboard had not only been enlarged, but had been rearranged so that the telephone traffic might be handled easily and efficiently. The enlarged board consisted of 16 operators' positions,—eight for local business and eight for toll and long-distance work. All the lines numbering between 1 and 1000 were reserved for direct line service, the next two

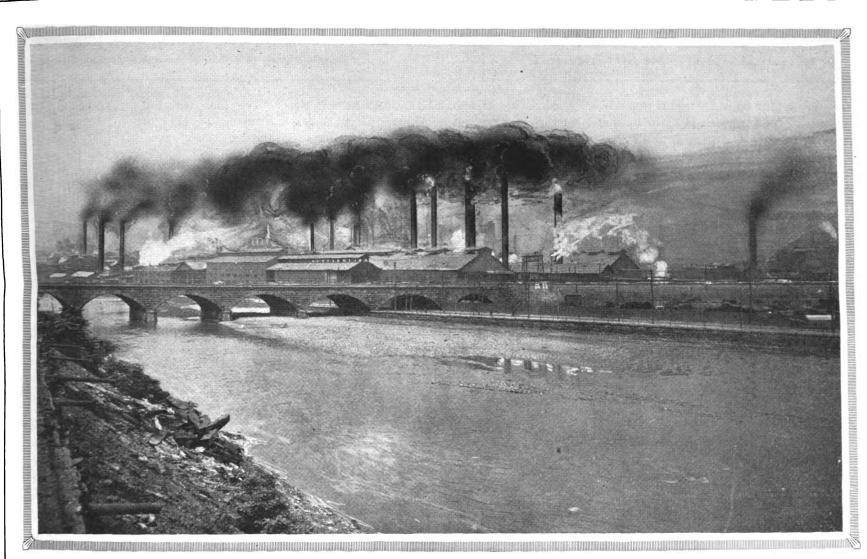
The Great Cost

Something like a quarter of a million dollars have here been spent by the Bell System within the last two years on additions to and rearrangements of the plant. The completed plant now contains about 250,000 duct feet of conduit and there are nearly twelve trench miles of underground cable. Ten tons of steel wire were used to furnish service on multiparty lines in the outlying districts, and the cable plant alone in Johnstown contains 9864 miles of wire,—enough to reach three times between Johnstown and San Francisco. More than 3600 poles have been placed and many other addi-

fact, the instrument which rests on the desk or hangs against the wall and represents the visible part of the telephone system is not more than five per cent. of the total plant, and it is the great body of ducts and underground wires, poles, cables, switchboards, and so on, which the public seldom sees, which cost so much money to build and so much skill to operate.

The Operators Are Trained

In order to leave no stone unturned in the Company's effort to render to Johnstown people Bell Telephone service of 100 per cent. efficiency, Mr. J. A. Collette, the Traffic Supervisor, formed



"Do you know . . . the smoke from its score of furnaces by day and the lurid glare of molten iron which spreads a glow over its housetops by night? . . . There are more than 20,000 men employed by the Cambria Steel Company alone."

hundred were held for two-party subscribers, and in a similar way other classes of service were grouped together.

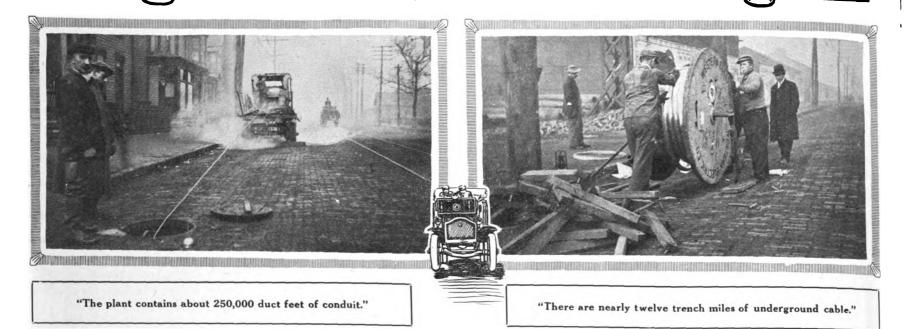
The switchboard is the *brain* of the telephone system; it is perhaps the most delicate and complex piece of mechanism that human skill has ever created. In the switchboard of a single big city exchange there may be 4000 miles of wire, 15,000 tiny electric lights and 2,000,000 soldered parts. One board in Philadelphia or New York will cost as much as the statue of Liberty. The Johnstown Bell switchboard includes something like 900 miles of wire, 3000 electric lights and 500,000 parts.

tions and rearrangements have been effected, but yet, with all this enormous plant and equipment, the construction work in Johnstown goes on. It is estimated that some \$50,000 will be spent in 1913 for outside construction and \$15,000 for additional central office equipment in the present quarters in the Franklin Building.

It is hard for laymen to understand what a wonderful mechanism is set into operation when they lift their telephone receivers, for this modest instrument of metal and hard rubber is now as common and as necessary on the business man's desk as is his ink-well, and as necessary in the modern home as running water. As a matter of

a class of 15 young women for the training which would graduate them as telephone operators.

Telephone operating is at least one profession to which "many are called but few are chosen." What impatient, hurrying American hasn't savagely jammed the receiver on the hook with an unkind word for an operator who has innocently reported "Line is in use"? There is scarcely one of us but who, at some time or other, has felt aggrieved at some imagined wrong by the girl who answers "Number, please?" But by the public be it known that never does the operator start "green," and before that public hears her sweet, inquiring voice she has been put through a



course of study and practice for weeks in a telephone operators' college which is as interesting as it is complete.

To be a telephone operator a girl is first examined as to eyesight, and leading questions show the extent of her education. Her arms must be of certain length, for it is necessary for a telephone operator to have a good reach. Just how severe the requirements are is shown by the fact that only about 20 per cent. of those who try for positions in this department of the Telephone Company are accepted.

The Telephone College in Pittsburgh is unusually elaborate in its equipment. It is located at 416 Seventh Avenue, and as a school of its class has a record to be proud of. In a single year 3474 applications for positions were received, and it is rather startling to learn that 2222 of these were rejected on sight. This left 1252 beginners from which to select reinforcements for the regular ranks. Of this last figure 228 failed to report for school duty when they were sent for; 361 re-

signed, for thus far they did not find the work the "picnic" they had imagined, and for other reasons; 185 were dismissed—operating inability was the principal cause. Finally 528 students out of the original 3474 applicants were graduated from the school and became full-fledged operators.

The class of 15 Johnstown girls were in charge of Miss D. T. Deering, one of the school's instructresses, and during their stay in Pittsburgh had rooms at the Bryon School of Oratory in Knoxville. They were first taught to accustom themselves to the wearing of a transmitter and receiver around their necks, known as the "operator's telephone set." The mechanism weighs but 153/4 ounces—a sharp contrast with the telephone set used in the early days, which weighed 15 pounds. Finally, after proving their knowledge of operating fundamentals, they were given positions at a dummy switchboard where calls are made and answered by instructresses in the school, and after a few weeks they returned to Johnstown as expert telephonistes.

Coincident with this preparation in Traffic and Plant departments, the Commercial department, under the direction of Mr. L. J. Billingslev, District Manager, was engaged in the work of securing contracts, and offices were opened in the Johnstown Trust Building. Mr. H. K. Sarver, the Supervisor of Salesmen, later became the Local Manager and is now responsible for the conduct of the Business Office in the Colonial Building at 634 Main Street, where bills are paid and contracts made. In early September an advertising campaign was begun to acquaint the Johnstown people with our efforts to develop the city telephonically, and besides regular newspaper advertisements the campaign included many features of unique and unusual character.

Some of the Features

At this time a three-ton truck and a Ford supervising car were used by the construction forces, and a five-passenger Packard touring car was moved in from Pittsburgh for use in keeping in touch with the salesmen and their work. This car was equipped with four musical bells so wired to the steering gear that the operator could



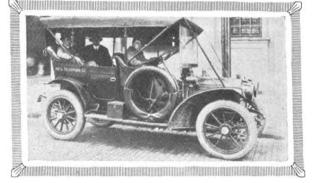
"At this time a three-ton truck and a Ford supervising car were used by the construction forces."

play the notes of bugle calls instead of using the horn, and they did much to associate the car with our work in the city.

For a month or more this Company paid for services and supplies in brand-new, crisp one-dollar bills direct from the Treasury at Washington,—this for the purpose of showing to Johnstown people in a practical way how much we were spending in their city; and the thousands of new dollar bills thus put into circulation among Johnstown business men did much to establish a cordial relationship with the public.

A series of war kites were also used on days when the wind made it possible, and these supported a 10 x 25 foot pennant inscribed with the legend, "Use the Bell," half a thousafid feet above the city; and early in October a searchlight of 8000 candle-power and five-mile range was operated from sunset each evening from the roof of the Franklin Building. The newspaper campaign referred to this searchlight as an illustration, in a small way, of the scope of Bell service, and it was pointed out that just as this beam of light could find and illuminate any spot on the hills around the city, so the Bell telephone was the Finder of Men-across the street or 2000 miles away-and that every Bell telephone is the center of a system of 7,500,000 stations in over 70,000 towns and villages over the land.

Four stenographers and a messenger boy were then kept busy with the mailing of some 2000 pieces of mail matter every day. Nearly 100,000 colored postcards were thus sent to Johnstown people as well as booklets called "Telephone Service in Your Home"; "Their Backing"; a business folder; a booklet showing examples of heroism among operators; one describing the uses of the telephone in family and social life, and so on. Each night, half a block from the Central



"A five-passenger Packard was moved in."

Square, a stereopticon was used to trace the history of the telephone in picture form, with explanatory slides to describe the views, and large crowds of people gathered to view the series. Advertising slides were also used in moving-picture shows and cards in all the street-cars called attention to our work.

"The Business Office at 634 Main Street."



The Material Arrives

While all this was in progress, carloads of telephone instruments and twisted wire to be used in what telephone men call "loops," from the outside of the building to the pole or junction box; copper and steel wire for suburban "runs"; crossarms; insulators, and so on, were shipped from the largest factory for manufacturing telephone equipment in the world,—the Hawthorne plant of the Western Electric Company near Chicago, and Mr. J. D. Kennedy of that company was responsible for its safe and prompt arrival. This in itself was no small undertaking, as was evident when two carloads of cable were wrecked in the Chicago freight yards and quick action was necessary in reloading the material and sending it on its way.

The Mammoth Float

When the first carload of instruments arrived a float was constructed nearly forty feet long and more than 400 brand-new telephone desk instruments were fastened to a series of steps which ran along its length. It was drawn by six horses through every section of Johnstown and its environs, and, as an extra touch, there was a set of eleven musical bells fastened near the driver's seat, and the air rung with such tunes as "Call Me Up Some Rainy Afternoon," "Everybody's Doin' It," and the like.

By a stipulation in the special contract which was used during the campaign the telephones were not to be installed until 2000 contracts were secured. Beginning early in September the force of 16 salesmen broke all contract records by securing nearly 200 contracts in a single week, and this pace was maintained until Wednesday, October 16, when the last of 2000 contracts were signed. Ordinarily it takes years to build a telephone plant such as the Bell Army rushed to completion in Johnstown in comparatively few



Main Street from the Business Office

The Franklin Building

Main Street from Cambria Theater

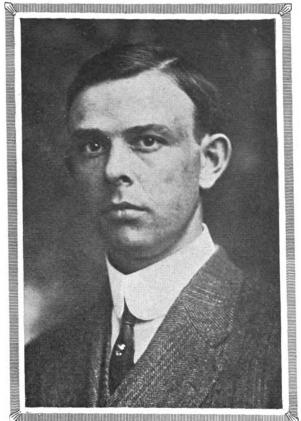
months, and ordinarily it takes a decade to secure 2000 new contracts in such a city; yet here that number were signed in $4\frac{1}{2}$ months. And so, with this setting all in readiness, a new army of men was set to work. Twelve installation wagons, all of similar construction and all with appropriate signs of similar character, were equipped and manned with crews including a driver, a foreman, a lineman, an installer and a salesman.

The Telephone Directory

Now when the work of installing 2000 telephones was contemplated, one of the many difficulties which presented themselves was the necessity for putting into the hands of new subscribers a complete list of all Bell subscribers as the work progressed. "Service," said the Traffic man, "is the foundation rock upon which success as a public utility company must be built, and unless new subscribers can have a complete list of the stations always at hand there will be a rush of calls for 'Information Clerk' or 'Chief Operator' which will slow the service and lower the high standard of Bell efficiency." And so a corps of clerks set bravely to work on the plans for issuing a brand-new and complete telephone directory of all subscribers in Johnstown and vicinity; a new edition to be issued as each 150 stations were added.

It will be interesting here to quote in substance from the Johnstown *Leader*, issue of Friday evening, December 27, 1912, in which a page is devoted to the way in which the Directory difficulties were surmounted:

"Some time ago the Bell Telephone System started in on a mammoth installation job in Johnstown, and to keep their subscribers constantly in



V. H. Dake, the Plant Chief

touch with the growing list a brand-new and complete telephone directory was issued at frequent intervals.

"A representative of the Bell System, who has been a resident of the city for some months, laid plans for the most complex printing order, under

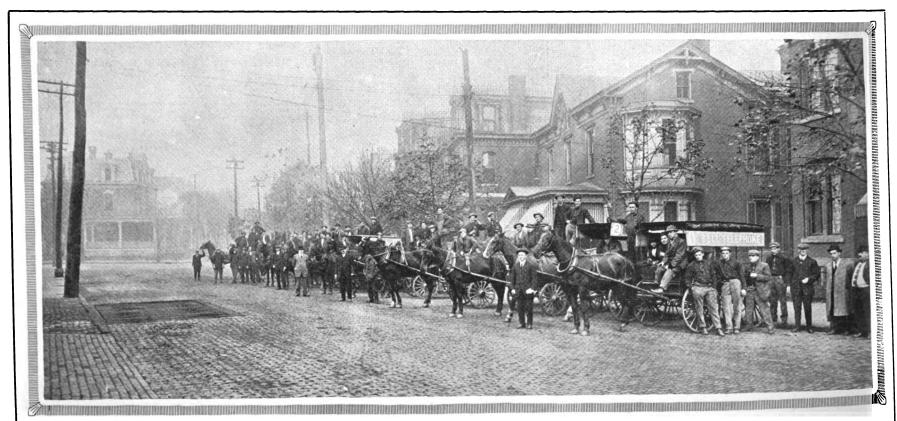
the most remarkable schedule, ever attempted here.

"Mr. J. A. Collette, local Traffic Chief of the Bell System, is responsible for the listings, the telephone numbers, and their proper insertion. Mr. Gable is responsible for the typography and the manufacture of the book from a printing standpoint, while Mr. B. H. Luttringer of the Leader Job Printing Department actually 'runs the job' and looks after details.

"At 6 o'clock on the evening of the day it goes to press the six 'forms' which compose the book are 'made ready' and the last telephone listings are 'set' in the linotype room. These go into their regular alphabetical positions and the 'forms' are 'locked up' in the composing room and hustled away to the two great cylinder presses which stand ready and figuratively 'pawing the air' with anxiety to roll out the finished sheets.

"Then there are ten to twenty tense minutes while pressmen and assistants fasten the 'forms' into the presses and take off the first sheet for 'register,' and as a final touch the pressmen adjust the little machines which click with each impression and automatically count the number of sheets printed, swing over the electric starting lever, and the presses respond at the not insignificant rate of 1500 sheets per hour.

"These sheets contain sixteen pages of listings each, which are arranged so that when the sheets are folded the pages will have their proper positions in the book, and as each 250 sheets are printed they are hurried back to an electric cutting machine, cut through the middle and delivered to a dozen young women who fold them into 'signatures,' or groups of sixteen pages each.



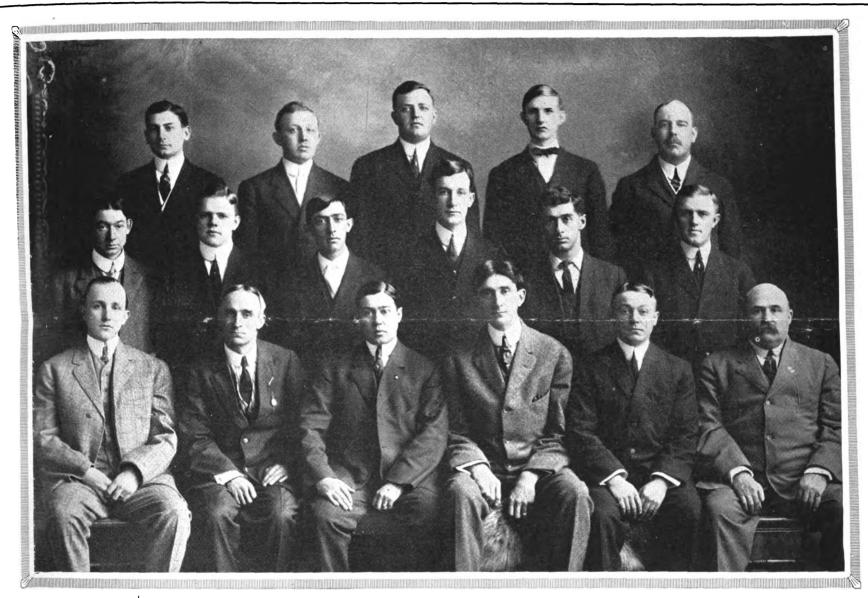
"Twelve installation wagons, all of similar construction and all with appropriate signs of similar character, were equipped and manned."

"Meanwhile the pressmen watch their machines with expert eyes, occasionally touching a screw here to lessen or increase the delivery of ink, or give a timely yank to some sheet that gets 'out of kelter.'

"Every move must be quick and every action decisive, for time schedules fix the hour and minute for each form to leave the composing room, for each thousand sheets to be finished, and for every single step in the job from beginning to end.

envelopes while one or two of the men pack them into a truck. This is finally rolled onto an elevator, lowered to the street level, and rattled over the bricks out the alley and across Franklin Street to the Post Office, where Uncle Sam's men await its coming.

"This first load is delivered about midnight, and by 2:20 or 2:30 the last of 3500 copies are humming through the stamp-canceling machines at the Post Office. months include upward of 10,000 pounds of paper stock, and if these issues were piled book upon book on the curb in front of the Post Office in the Franklin block, the pile would tower up into a veritable skyscraper of telephone directories nearly 850 feet high,—more than seven times as high as the Johnstown Trust Building, higher by 100 feet than the Metropolitan tower in New York, or half again as high as the Washington Monument which graces a rise of ground along the Potomac in the national capital.



"The salesmen under the direction of L. J. Billingsley, District Manager, and H. K. Sarver, now Local Manager."

J. H. Leppert G. W. Kirby George Flotzinger J. S. Thompson F. J. Maggini

Burt Barkheimer J. B. Wier C. O. Bowman W. J. Cavanaugh W. C. Hurl J. R. Watkins F. G. Heck J. C. Henderson L. J. Billingsley, Dist Mgr. H. K. Sarver, Supvr. of Salesmen H. J. Dietolf J. P. Stahl

"At something like 10:40 the last 'form' goes to press and as these last sheets are folded some of the young women 'assemble' the books by combining the groups of pages. Then the purring sound of another motor begins and the books are opened to the middle and fed into a little machine which fastens the leaves together with wire staples, then final trimming in the electric cutter, and they are finished.

"But they have still to be mailed, so stacks of the books are laid out on a long table and nimble fingers slip them into addressed and stamped

The Magnitude of the Job

"It's no small job to turn out 3500 copies of an 88-page telephone directory, with a cover in two colors, in eight short hours, for it means that the two cylinder presses must roll out 21,000 impressions and the smaller press which prints the covers must do 3500 more; it means that these sheets must be folded, gathered together, bound into the covers, the books trimmed, inserted in envelopes and delivered at the Post Office.

"The eleven issues of this Bell Directory which have already been published in the last two "If the paper in these eleven issues were fastened together in one great blanket it would be large enough completely to cover the streets of the business section of Johnstown, say from the Franklin Street bridge to Washington Street, and on Main from Bedford around the Central Park and down to the end of the street, with enough left over to envelop City Hall.

"Half a ton of metal is used in the linotype 'slugs' which compose the 'forms,' and 25 or 30 people are 'keyed up to concert pitch' till the job is done."



The Halloween Parade

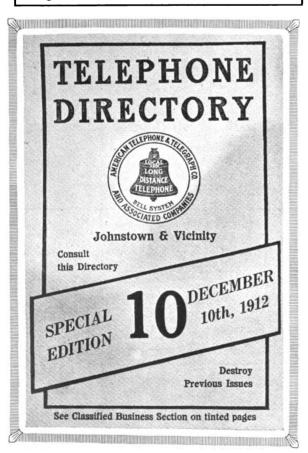
Now, if you know Johnstown, you know that celebrations like Halloween are entered into with spirit and vim that is as stirring as it is commendable, and the Halloween parade held in that city will do credit to many a town of several times Iohnstown's size. The mammoth float which had been used a few weeks before was redecorated and again brought into service. This time Presto-lite searchlights were arranged in each of the four corners so as to throw light up over the instruments and the decoration, and two especially large, powerful ones were used to throw light forward over the horses. There were ten on this occasion, all completely covered with orange-colored cheesecloth which reached almost to the ground and simply left openings for the eyes, and red plush strips with large embroidered Blue Bells on each horse added a touch of color to the team. In all, this float, with the horses, was something over a hundred feet long and called for considerable applause and commendation along the line of march.

The three-ton construction truck was also decorated and preceded the float, these two floats leading the Industrial Division in the parade.

Election News

A few days later rather elaborate arrangements were made to disseminate election news, and the evening of Election Day an Information Bureau of ten men had been equipped in the Suppes Building, and a moving-picture display preceded the stereopticon returns. For these a screen was used on the building across the street, and this screen was within a hundred yards of the *Leader*

"It's no small job to turn out 3500 copies of an 88page telephone directory, with a cover in two colors, in eight short hours."





"The great finger of light from the searchlight."



Uncle Sam's men delivered them

and double that distance from the Johnstown Tribune. The sea of humanity which poured into this street early in the evening would do credit to the "pack" before a Broadway bulletin board when the World's Series was in progress. "Sea" as a descriptive word for this crowd is used here advisedly, for there was a roar from a thousand horns and mingled cheers for one candidate or another from 10,000 throats.

The noise and confusion without was, however, in sharp contrast with the orderly handling of work within. Ten men sat at a long table in one room and answered telephone inquires. These calls for "2000,"— the number given this Information Bureau—were accepted toll-free from any point within reasonable distance from the city. The American Telephone & Telegraph Company made especially elaborate preparations for gathering election news, and by a special arrangement the bulletins were received in Johnstown as promptly as they were in New York or Chicago, These messages were received in the room which fronted on the street and, above the clatter of typewriting the incoming messages, sounded the whir of the moving-picture machine, while over on one side specially prepared slides were being written for display in stereopticon form.

The searchlight was also used to show the trend of results, and a telephone was installed which directly connected the searchlight operator with the Information Bureau, so that the powerful ray of light was turned in various directions to show advantage for certain candidates.

The back cover of Issue No. 10
"From the first this innovation was deeply appreciated by Johnstown people."

Astronomen per expression compensation compensation of the compens

See the New Classified Business Directory

With a view to making your Bell Telephone "A Convenience more Convenient" we have added to this directory a section of tinted pages, bound in the middle of the book, and containing a complete list of business subscribers to Bell Service in Johnstown, arranged under their respective business headings.

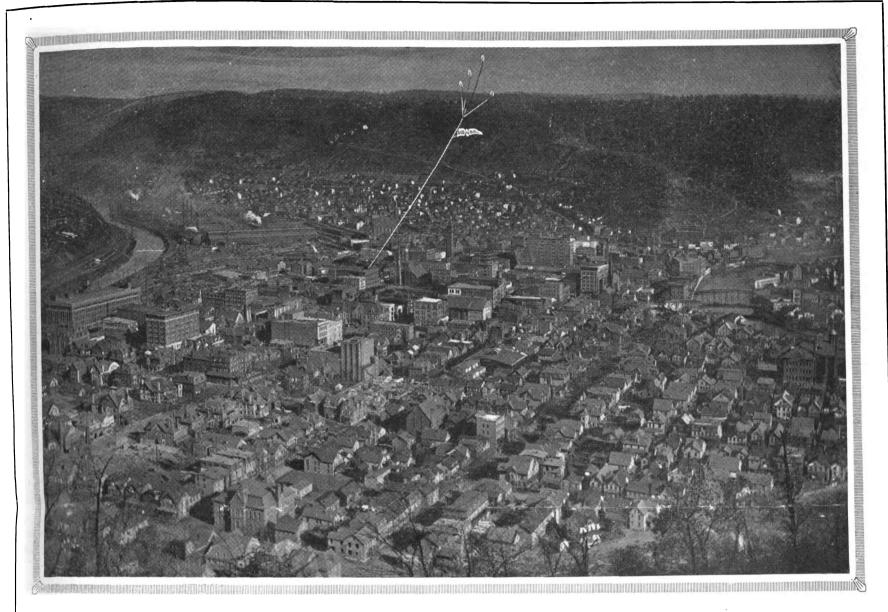
The Housewife will find this a mighty aid in Christmas Shopping and the Business man should open wide his telephone door and develop this most important factor in increasing his sales and profits.

If your tradespeople are not all connected, call up and tell us. We shall be glad to have a representative see them and your name will not be used without your permission.

Use—the—Bell

THE LEADER PRES

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"A series of war kites were also used on days when the wind made it possible, and these supported a ten by twenty-five foot pennant inscribed with the legend, "Use the Bell," half a thousand feet above the city."

It was midnight before the great crowd separated itself into groups and so found its way into the restaurants for coffee and sandwiches.

It is interesting to contrast the fact that news of Wilson's election was a subject of common knowledge in every hamlet of the land by ten or eleven o'clock, with conditions which obtained only a few years ago when it was weeks before definite news of election results could be compiled and disseminated. It is the handling of such vast traffic as this which makes the marvel of long-distance communication stand out in monumental proportions.

One clear Saturday evening, downtown promenaders were surprised to see a great yellow gas balloon hovering in the air a thousand feet above Central Park and supporting an immense "Use the Bell" pennant, all illuminated by the great finger of light from the searchlight on the roof of the Franklin Building. This balloon, by the way, was constructed by Leo Stevens, an aeronautical engineer of New York City, and was used for photographic purposes in the Interna-

tional Balloon Races in Russia by the aeronaut Otherholt, who was reported by the press of the world to have been lost on that occasion, but who afterwards turned up safe and sound and brought his equipment, together with this balloon, back to the States.

A week before Christmas the newspaper advertising suggested that a real, live "Santa Claus" might be reached by calling "2000," and nearly a thousand kiddies immediately availed themselves of the opportunity. Santa Claus promptly acknowledged their call by a colored Christmas card and sent lists of the things they wanted to his assistants for their attention.

The features which may be called "spectacular" in this campaign were discontinued a little after January 1, 1913, but the efforts of that score of salesmen who worked through the campaign did not cease when the goal of 2000 was reached. It went right on past 2200, 2300 and 2500, and goes on still.

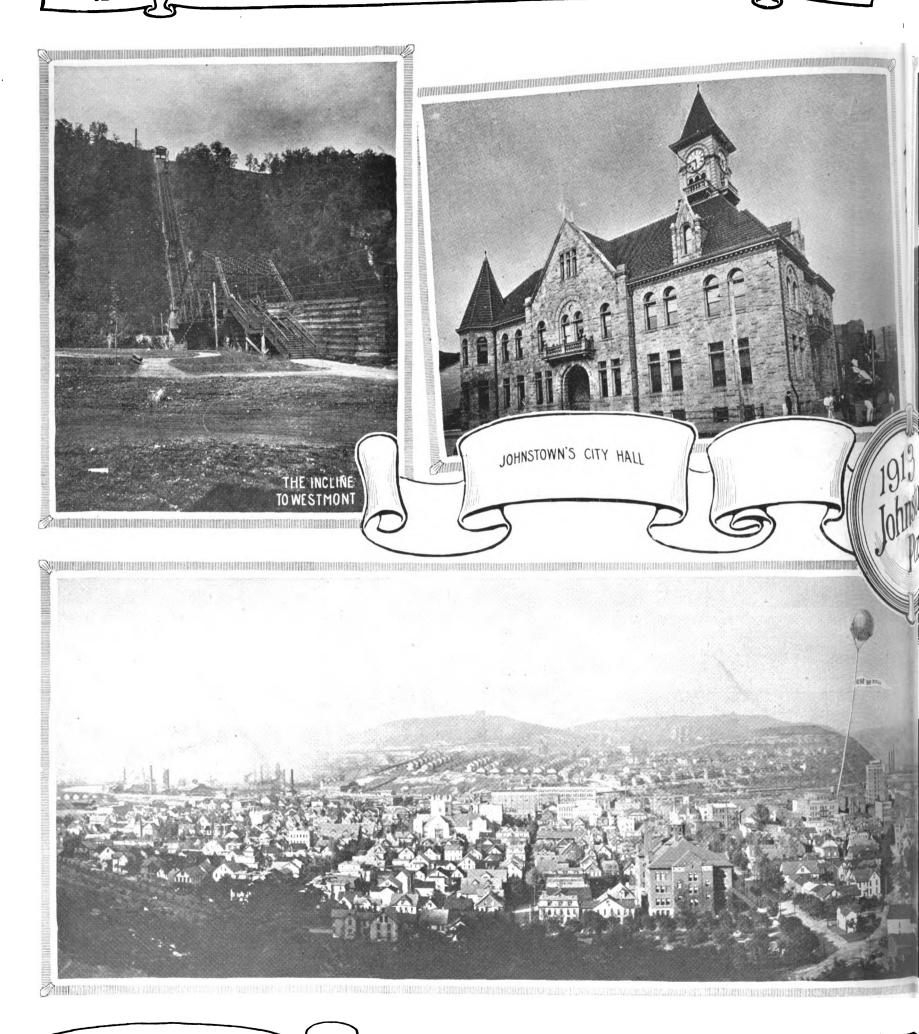
"Sufficient unto the day is the evil thereof" has no place in the Telephone Company's business belief, for its engineers must be looking and planning forward for the constant betterment of the service and for the planning and building of plant which will care for every need of the community.

The Traffic department in Johnstown is one of the best in high standard of efficiency, and its record for service is at a point higher than most cities of its size; yet new methods are constantly going into effect and no detail is too small or insignificant for immediate adoption if it points toward betterment of the service.

In the Plant department each morning brings a new supply of "line orders" covering instructions for the installation of telephones in various locations throughout the city, and each day the installation crews place these new stations which are steadily adding to the total number in service.

In the Commercial department salesmen still turn in a substantial number of new applications every week, and the demand for Bell service is increasing in every part of the city.

THE "CAMBRIA" FURNACES

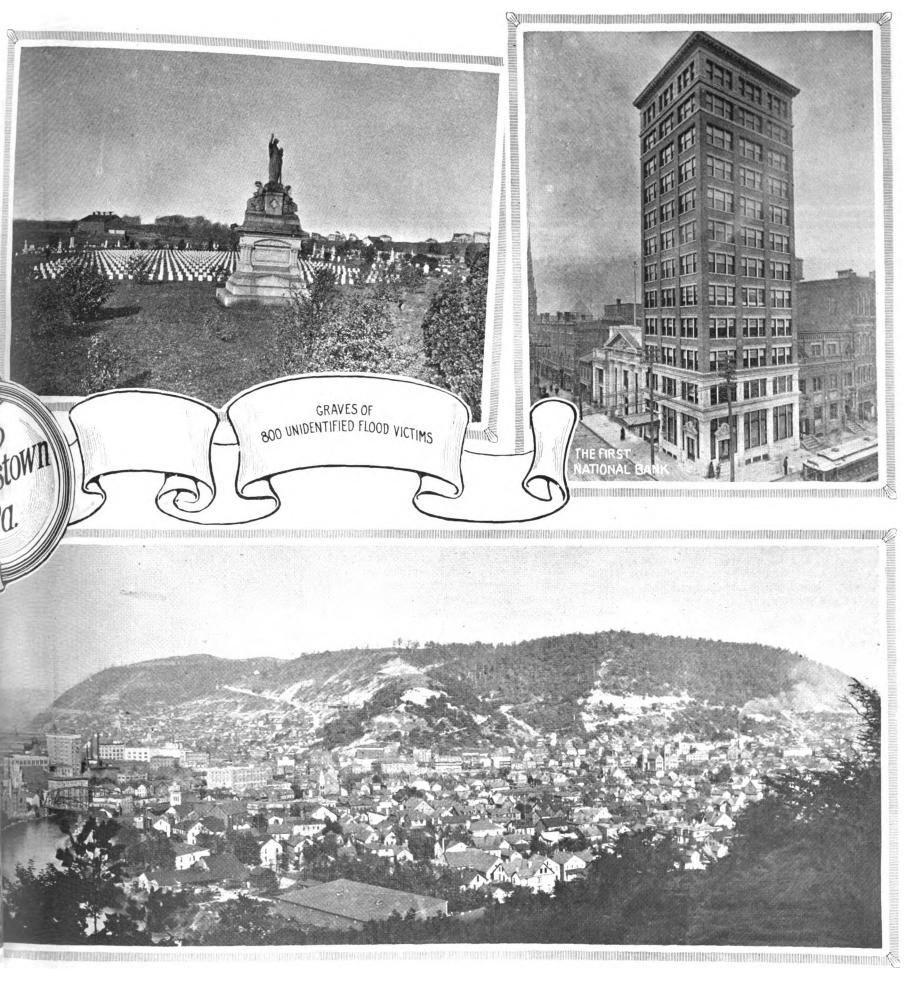


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THE PENN TRAFFIC CO. IN THE DISTANCE

THE HIGH SCHOOL IN THE FOREGROUND

THE GREAT BELL TO ON OU



LEPHONE BALOON

THE BELL TELEPHONE BUSINESS OFFICE IS IN MIDDLE GROUND

THE SECTION CALLED "KERNVILLE"



A THIRD OR MORE OF THE CITY LIES TO THE RIGHT



Abram Plains

Town of Wyoming, Pa., Where Massacre Occurred

Wyoming, Pa., Battle Monument below

Classification of Offices

It is thought that the following classification of Western Union and joint telephone-telegraph offices, together with examples of each, may be generally useful:

CLASS 1-Western Union Independent Office: An office representing a distinct unit in the service, operated by the Western Union Telegraph Company, and having its business checked direct by other offices. Messages transmitted directly over telegraph lines, except during closed hours, when telephone toll lines may be used.

Examples: Philadelphia (main office), Fifteenth and Chestnut Streets; Pittsburgh (main office), 249 Fifth Avenue.

CLASS 2-Western Union Branch Office: An office operated by the Western Union Telegraph Company, under the supervision of and in the same area as a Class 1 office, and having its business reported and checked as of the office to which it reports.

Examples: Branch office at Land Title Building, Philadelphia, and at Jenkins Arcade, Pittsburgh.

CLASS 3-Western Union Tributary Office: An office operated by the Western Union Telegraph Company, under the supervision of a Class 1 office but located in a separate area, and having its business reported and checked as of the office to which it reports.

Examples: Marcus Hook, Pa.—near Chester, Pa. (Class 1 office); Steelton, Pa.—near Harrisburg, Pa. (Class 1 office); Wilkinsburg, Pa. near Pittsburgh, Pa. (Class 1 office).

CLASS 4—Western Union Joint Railroad Office: An office operated by a railroad company, representing a distinct unit in the service, and having its business checked direct by other offices.

Examples: Kiamensi, Del. (B. & O. R.R.); Laurel, Md. (B. & O. R.R.); Beaver, Pa. (P. & L. E. R.R.)

CLASS 5—IVestern Union Branch Railroad Office: An office operated by a railroad company but located in a city or town in which there is also a Class 1 or Class 10 office, and having its business reported and checked as of the office to which it reports. Such offices are branches of Class 4 offices in exceptional cases only.

Examples: B. & O. office at Chester, Pa., and at Water Street, Pittsburgh, Pa.

CLASS 10—Joint Check Direct Office: An office located at a joint commercial or central office. operated by the joint employees in the premises of the Telephone Company, and having its busi-

ness checked direct by other offices. Offices which employ telegraph operators for the whole or part of each business day will be known as Class 10A, and offices which rely wholly upon telephone transmission to points of transfer will be known as Class 10B.

Examples: 10A—Camden, N. J.; 10B—none at present; 10A-McKeesport, Pa.

CLASS 11-Joint Tributary Office: An office located at a joint commercial or central office, operated by the joint employees in the premises of the Telephone Company, and having its business reported and checked as of the Class 1 or Class 10 office to which it reports. Classes 11A and 11B defined as under Class 10.

Examples: 11A—26 West Chelten Avenue, Germantown; 11A—136 S. Highland Avenue, E. E., Pittsburgh, Pa.; 11B—none at present.

CLASS 12-Joint Toll Agency: An office operated by a joint agent of the Telephone and Telegraph Companies, located at a coin-box or noncoin-box toll station or commission exchange, and having its business reported and checked as of the Class 1 or Class 10 office to which it reports. Messages are transmitted over the telephone toll lines.

Example: None as yet on account of pending arrangements.

CLASS 13-Joint Public Station, Company-Attended: A local public station operated jointly with the Telephone Company, and having its business reported and checked as of the Class 1 or Class 10 office to which it reports.

Examples: 1230 Arch Street, Philadelphia; 416 Seventh Avenue, Pittsburgh, Pa.

CLASS 14-Joint Public Station, Agent-Attended: A coin-box or non-coin-box local public station operated by a joint agent, and having its business reported and checked as of the Class 1 or Class 10 office to which it reports.

At all the above offices, Classes 1 to 14, inclusive, direct telegraph rates will apply and written messages will be received.

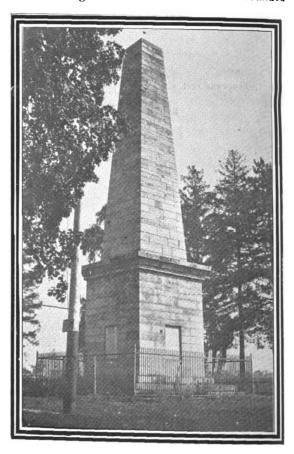
Example: None as yet on account of pending arrangements.

CLASS 15-Joint Public Station, Agent-Attended: A coin-box or non-coin-box local public station operated by a joint agent, and having its business reported and checked as of the Class 1 or Class 10 office to which it reports. usual local exchange telephone charge will be made for connection with the telegraph office in addition to the telegraph charges, and the agent will not be required to accept written messages.

Example: None as yet on account of pending arrangements.

The Wyoming Valley

THE Wyoming Valley is not only one of the most picturesque spots in the United States. but it has been the scene of much historical action. The valley itself extends from Pittston, at the north end, to Nanticoke, at the south end, a distance of nearly seventeen miles. and its average width is three miles. It is bounded



on each side by mountain ranges, and through the center flows the north or main branch of the Susquehanna River. From the earliest historic times the valley of Wyoming was known to the Indians of the Six Nations, and in the seventeen hundreds it contained many Indian villages.

The Moravian missionaries were the first white men to visit the valley, and they carried back glowing accounts of its beauty and fertility. These reports reached the ears of settlers in New England, and a company was formed at Hartford, Conn., in 1754, called "The Susquehanna Company," the object of which was to establish settlements in the Wyoming Valley. They purchased

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he land from the Six Nations for \$10,000. Firmly believing that the Wyoming region was within the boundaries of Connecticut, they hought possession only was necessary to render their title complete.

It was not, however, until the summer of 1762 hat any settlement was made by the colonists, when 119 immigrants arrived from Connecticut. They settled at what is now the northern part of he city of Wilkes-Barre, near the mouth of Mill Creek. Owing to the small stock of provisions, he settlers were forced to return to Connecticut for the winter, but returned to the valley the next spring, bringing their families, household goods and live stock, and prepared to stay permanently.

Following this settlement, forty years of fighting was necessary to establish the supremacy and the right of these Connecticut pioneers. Twice Indians attacked them and drove them away, but they bided their time and perseveringly returned to this valley in the resources of which they had so much confidence. Time after time the inhabitants of Pennsylvania, whom the Yankees had named Pennanites, tried to drive them from the valley. Once they succeeded, but the Yankees again returned and, after this one defeat, succeeded in holding their own against the Pennanites although they willingly submitted to the jurisdiction of Pennsylvania.

At length in 1799, after forty years of strife, peace was assured. The claims of the settlers were ascertained and certified, and all titles to lands were fairly settled. From this time on prosperity became a certainty, and hundreds of people came and settled in the fertile region along the Susquehanna.

In 1808 occurred the event which had more influence on the future of the Wyoming Valley than any other—the discovery of the commercial use of anthracite coal. Here coal had been used as early as 1768, and was used for nearly twenty years before its existence was known in any other part of Pennsylvania. It was first used for domestic purposes when, in February, 1808, Judge Jesse Fell discovered that it could be burned in a grate in an open fireplace.

From this period to the present time the story of the Wyoming Valley has been one of steady growth and advancement, until now the valley is studded with thriving towns. Wilkes-Barre, the oldest town in northeastern Pennsylvania, the county seat of Luzerne County, and the social and business center of the Wyoming Valley, is one of the most important cities of the anthracite coal region. It lies on the left or eastern bank of the Susquehanna River, midway between Pittston and Nanticoke. Laid out in the year 1769,

Major John Durkee gave it its name, compounded from the surnames of John Wilkes and Isaac Barre, two distinguished citizens of England, who were stanch friends of the colonists in their early struggles. It became a borough in 1806, with a population of 400, and a city in 1871, with 10,174 population. Its present area is 48 square miles and a population of 68,000.

East and West Pittston, the former a city and the latter a beautifully situated residence town and borough, both lying at the head of the valley, form a business and mining center second only to Wilkes-Barre. Nanticoke, situated at the southern end of the valley, is a large and rapidly growing town.

Kingston, which lies opposite Wilkes-Barre, is an old town. Here is located the Wyoming Seminary, one of the best known institutions of learning in the state. Kingston is the center of the West Side, and is rapidly becoming a manufacturing center.

The other towns of the valley, though smaller, are none the less important in their contribution to the wealth of the region; Plymouth, Edwardsville, Ashley, Luzerne, Miners Mills, Plains, Parsons and Wyoming are all thriving towns.

Though mining is the chief industry, it is by no means the only one; many of our manufacturing and mechanical industries are of considerable importance and some of them are among the largest of their kind in the country.

The end of the Wyoming Valley's growth is not yet in sight, as it is an ideal region for manufacturing, mercantile and residential purposes. Coal is plentiful, and the future supply abundant. To quote from one of the United States Mine Reports,—"The Wyoming Valley mines more coal than any similar area in the world." The location is excellent for growth and expansion, and its shipping facilities, by eight trunk and connecting railroad lines, are unexcelled.

The telephone growth of this region has been as rapid and remarkable as its industrial growth. In the last seven years the number of Bell stations in Wilkes-Barre has been tripled until now there are nearly 4600 stations in this city alone. In Pittston the number has doubled in seven years, increasing from 830 to 1857. The same is true of Nanticoke, where the increase has been from 310 to 662.

In Kingston there are to-day five times as many Bell stations as there were on January 1, 1906, the total reaching nearly 1400. In the whole valley the development has been almost tripled since 1906 and now includes 9000 stations.

Letters and Other Comments

Main Belting Company, Philadelphia, U. S. A.

Bell Telephone Company of Pennsylvania, Ardmore, Pa.

Gentlemen:—I want to express my great appreciation of the courtesy and efficiency shown by your operator between 10.30 P. M. and 1.30 A. M., night before last, in handling the telephone service to 160A Ardmore, in connection with our fire here in Philadelphia, and finding me. It is solid pleasure to write you this, for that operator was so thoroughly "on the job" that it was a distinct help to us all.

Yours truly,

Wm. T. Plummer.

This letter refers to the efforts of Night Operator Miss Conlin to render efficient service to Mr. and Mrs. Plummer at the time of the fire at Mr. Plummer's business. Mrs. Plummer, after receiving the first call from the city, endeavored to make the last train to Philadelphia, and referred her desire to the operator, and also that she wished to talk from the station upon arriving there. Miss Conlin devoted her careful attention to helping this subscriber, and expressions of appreciation of service rendered were made to her at that time.

A Philadelphia druggist, who had given one of our salesmen the name of a prospect, wrote to the Commercial department asking that a check be forwarded to him covering his commission on new business. The salesman who handled the application called the druggist and informed him that this Company did not pay commissions on new business. The druggist agreed that he did not want anything that other people weren't getting, but said that this had been the practice in a Western city where he had lived and he supposed, of course, it was here.

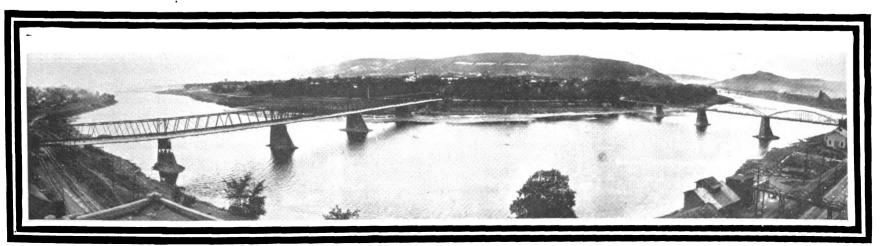
A Devon (Pa.) subscriber whose service area has lately been extended wrote: . . . "I, as do all the family, appreciate the privileges you have extended to us."

The following reply was received to a letter from the Philadelphia Division Manager calling a former subscriber's attention to an unpaid suspense account:

"Dear Sir. this bill was not payed on account of me beeing out of town, and the plaice shot down.

will sattel in afew dayes,,

yours truly



Water

By Dr. Alvah H. Doty, Medical Adviser of the Employees' Benefit Fund Committee

THE ocean, which covers more than threefifths of the surface of the globe, is the natural source of our water supply. From it arises a continuous stream of vapor to the atmosphere to be recondensed and precipitated in the form of rain and snow. The far greater portion of this returns to the ocean. The part falling on land either forms rivers, lakes or pools, or penetrates the earth and becomes the great underground water system upon which we so largely depend for drinking purposes. It is both interesting and important to know something of the course taken by the water after entering the ground and the combinations it forms as it descends.

Underground Water System

A section of the earth extending downward for a considerable depth would show the soil arranged in various layers or strata. The significance of this so far as it indicates the formation and age of the earth is well known to geologists. It is also of great interest in connection with the underground water system, for it explains the manner in which it is collected and distributed.

The layers referred to are variously composed of sand, gravel, chalk, clay, etc. Some of them, for instance clay, are practically impermeable, i.e. water cannot pass through them, while on the other hand sand is easily penetrated. Therefore water in its descent passes without difficulty through the latter substance, and upon reaching a layer of clay or some other impermeable stratum is directed along until it finds an exit somewhere, probably in the form of a spring or as a supply to some body of water, or it may remain below until an outlet is made for it in the form of a well.

The strata are not uniformly arranged and are at various levels and frequently curved, sometimes forming large underground basins. As a result, water upon entering the earth may reach impermeable strata at different depths and supply either superficial or deep wells.

Contamination and Purification

Various forms of contamination are carried into the ground by the surface water. Many of these are filtered out by the soil, some are destroyed by oxidation, and some by certain forms of bacteria which live upon organic matter. For this reason water becomes purer as it goes further down and we may expect to find a better and safer supply in a deep well than in a superficial

Certain gases confined in the earth may sometimes force underground waters to the surface, although this is usually brought about by the pressure of the water from behind in its effort to reach its own level, for this supply frequently has its origin in mountainous regions or where there is considerable elevation, and may follow along impermeable strata, sometimes at a considerable depth, and appear at the surface through natural or artificial means many miles away.

Chemical Changes Affecting Water

During the transit of water through the earth, certain chemical changes take place. The soil is rich in carbonic acid, and the underground water holding this gas in solution dissolves out various mineral substances contained in the strata with which it comes in contact. In some instances the presence of these salts is so pronounced that

the water is rendered unfit for general use, although in this state it is often valuable for medicinal purposes.

"Hard" and "Soft" Waters

The most frequent combination is with lime and magnesia, particularly the former. When a comparatively large amount of it is present the water becomes "hard," i.e., the lime or magnesia combines with the fatty acids of soap and prevents the prompt formation of lather; therefore "hard" water is neither satisfactory nor economical for bathing or other domestic purposes. While there is practically no danger in drinking it, it may not be so acceptable as some other kind. Water which contains but little or no lime is called "soft" and is far better and pleasanter for general use. Not infrequently heated water, which probably has its origin deep in the earth, reaches the surface and forms what are commonly known as "hot springs." These various conditions have led to the establishment of many celebrated resorts or "water cures" throughout the world.

Rain Water and Methods of Collecting It

If it were possible to collect rain water above the point of contamination in the air it would be the purest and softest supply we could obtain, but as it falls to the ground some form of pollution always takes place, for it washes out the air. In the country it is comparatively small and does not materially affect its value, but in cities and manufacturing towns where the air is constantly charged with poisonous gases, the products of offensive trades and the usual contamination of these places, rain water, unless purified, becomes unfit for drinking purposes.

In sections where there is no general water supply to draw from, such as springs, rivers, lakes, etc., and where but little can be secured from underground sources owing to the peculiar formation of the soil, rain water is eagerly collected. In emergencies it is often caught upon canvas or rubber cloths, and for general use large ground areas with cemented floors and underground storage cisterns are sometimes employed, although the common method of securing it is from roofs of buildings. As a rule but little attention is given to the cleanliness of these surfaces, although it is a matter of great importance provided the water is used for drinking purposes. This protection may be secured in a simple manner by having the waste-pipe from the roof so constructed that it can be quickly disconnected from the storage tank at the beginning of the rain, and allowed to discharge over the ground for a few minutes, in order that the roof may be cleaned, and then reconnected with the cistern.

Careful attention should be given to the construction of storage tanks. They ought not be made of wood, which rot and leak, nor should they be composed of lead, zinc or iron, for the 'soft" water readily dissolves these metals and renders the water unsafe for drinking purposes; furthermore, poisonous gases and other forms of impurities will gain entrance into the underground tanks if they are not properly constructed of brick or stone and cement, as they do into cellars having defective walls. Although underground tanks do not freeze in winter, and while the water which they contain may be kept cool in the summer, they cannot be so easily inspected and cleaned,—a very important consideration.

Rain-water barrels which are commonly found outside the house in the country are usually unsanitary as well as defective, besides they are common breeding-places for the mosquito, for as a rule they are not properly coverd. This will

openings of these receptacles should be protected by wire netting.

Necessary to Protect Even Spring Water

Spring water in the country is valuable for drinking purposes, provided inspection indicates that it is practically free from contamination. It is usually cold and sparkling, besides receptacles are not needed for its storage. In towns there is always danger of contamination, for although the supply may come from miles away, it is sometimes superficial and receives impurities from the Spring water should be protected surface. against contamination at its exit by stone or cement walls and floors. In addition a pipe may be introduced into the opening, not only for protection but more effectively to direct the water to its exit.

Lakes under proper conditions furnish a very satisfactory drinking supply. The water is still and the organic matter and other forms of impurities which it contains more quickly settle to the bottom. There is considerable truth in the saying that lakes "purify" themselves. Where lake water is used for drinking purposes there should be a most rigid and constant patrol of its shores to prevent the discharge of sewage or other forms of filth into the water, besides the intake should be some distance from the shore to still further prevent contamination. The safety of this form of water must always be seriously questioned if there are built-up communities along the border of the lake.

Special Inspection of River Water

The river water of inhabited regions which is commonly used as a general water supply, is very apt to be dangerous and unfit to drink except at its head, where it receives its supply from the mountains or from tributaries which are not contaminated, or before it receives the waste and sewage of towns. The ease and economy with which municipalities can draw water from these sources has led to many serious consequences so far as general infection is concerned.

River water used by large communities for drinking purposes is generally filtered; briefly speaking, the method usually employed consists in passing the water over filter beds, which are composed of three or four feet of gravel on top of which is a layer of fine sand of about the same depth. Impurities are removed as the water passes down through these permeable layers to its destination. Still this system is open to various objections and cannot be compared with water obtained from other sources some distance away. The ancient Romans were aware of this, for although the Tiber runs through the city, the water supply was brought from distant sources by aqueducts so splendidly constructed that some portions are still in use.

Wells Not Always Pure

Well water is a common source of supply in the country and like spring water is cool and pleasant to drink. Unfortunately wells are frequently contaminated and often transmit infectious material; this refers particularly to typhoid fever. and partly explains why this disease is more or less always present in rural districts.

Deep wells are less dangerous in this respect than superficial ones, for the water is usually drawn from below an impermeable stratum. while this does not usually occur in a superficial one; however, defective construction will allow surface impurities to reach the interior of deep wells through their walls. Artesian wells constitute an exception of this, for they are bored also occur in underground cisterns, therefore the frequently to a depth of many hundreds of feet

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to reach below or between impermeable strata where water is held under pressure. This escapes to the surface through a continuous tube or pipe, which if properly constructed admits of but little danger of contamination; for this reason artesian-well water is with safety often used in built-up communities, although these wells should always be under careful supervision.

Location and Construction of Wells

The need of protection about the opening of ordinary wells and the space immediately surrounding them is often a fruitful source of contamination. The old oaken bucket system, which required that the well shall be freely open, is anything but sanitary. In its place a modern pumping apparatus should be used so that the opening can be properly closed and protected; besides the space surrounding the opening of the well should, for a distance of a few feet at least, be graded and cemented from the well outward and downward, and for ten or fifteen feet down the walls of the well should be constructed with brick or stone and cement. A layer of clay on the outside of the well renders it still more safe.

Wells become contaminated and receive infectious matter usually from near-by privy vaults and outhouses, cesspools, etc., through the soil to the underground water which supplies the well. Therefore in addition to proper construction a well should not only be placed at the highest practical point, but should be as far as possible from all sources of contamination. The distance cannot be accurately determined, for it depends largely upon the arrangement of the underground strata; however, a careful study of the situation along the lines already referred to should secure sufficient information to place the well fairly out of harm's way.

The presence of infectious contamination is not indicated by the appearance of the water, for the clearest and coolest specimens may contain germs of disease.

Distilled and Bottled Waters

Distillation obtains a water which is practically pure; however, this is frequently objected to on the ground that it is "flat" to the taste. Recently distilling apparatus have been devised and successfully operated which also aerate the water. This should provide a very pure and acceptable drinking water and is particularly valuable when the safety of the general supply is questioned.

Sea water also may be distilled and used for drinking purposes. All modern steamships and war vessels are now supplied with apparatus for this purpose and thereby secure an abundance of pure water.

Strangely enough, there is but little or no municipal, state or federal supervision over the sale of bottled water, which comes from every section of the world. We have practically no official knowledge as to its character, the methods of bottling, or the means that are taken to prevent contamination of the receptacles by employees or otherwise, with which we should be familiar. Our information on this subject is confined principally to the advertisements of the various waters, whereas it is a matter which should be under strict official surveillance.

Our Physical Needs of Pure Water

Water, next to air, is most necessary to our existence. It plays an exceedingly important part in maintaining the various functions of the body. It is constantly needed to make up for the loss of moisture from the skin and lungs, and it flushes out certain organs, and also preserves the shape and symmetry of the body.

The importance of water in the preservation of health is far from being appreciated, and but few persons drink enough of it. This lack of fluid may lead to unpleasant conditions such as indigestion, torpidity, headache, dryness of the skin, etc., the cause of which is not usually understood.

It is estimated that the adult human being needs two to three quarts of water in twenty-four hours. Probably one-third of this is usually taken in with the food. In addition, four or five glasses of water a day under ordinary conditions would be a fair estimate of what the system requires, although it is subject to great changes depending largely upon exercise and climatic conditions, for during the warm weather the skin rapidly abstracts large quantities of water from the system which need to be promptly replaced. Contrary to the general belief, there is no objection to drinking a reasonable amount of water with the meals, although it should not be confined to this time, but distributed more evenly throughout the day.

The importance of water in maintaining proper health requires that the supply shall be as pure as possible. We have already learned in a previous article that to a certain extent the body becomes tolerant of impure air; this same protection exists in connection with water, for there are some forms of impurities in all drinking water which practically do no harm. As a rule water used in cities is of this quality. The danger is not so much from ordinary contamination, but is due rather to the presence of infectious germs, and it is fair to assume that if there is no unusual prevalence of diseases commonly transmitted by water, the general supply may be drunk with safety. During warm weather, and particularly among children, certain impurities in the water will often cause a widespread outbreak of stomach or intestinal irritation. The large number affected and the rapidity with which the malady spreads will usually indicate the source of trouble.

Each His Own Protector

It is rather in small communities and in the country, where no properly organized health protection exists, that each citizen must be alert in protecting his home against improper drinking water. By carefully bearing in mind the way it is collected and distributed, the ordinary means of contamination which have already been referred to, and the necessity for prompt examination if the water becomes in any way suspicious, there should be secured an efficient protection against danger from this source. It may be added that public laboratories usually examine specimens of drinking water free of charge.

Choose Drinking Water with Care

There is a practice among those who frequently make short excursions into the country to drink of the so-called clear and cold water whenever they can get it. This is unsafe, particularly where the well is not in constant use. Water from this source should not be used for drinking purposes unless, after careful observation and inquiry,

there is reasonable evidence that it is not contaminated; typhoid fever is not infrequently the result of this imprudence.

Boil, Then Protect It

When there is reason to believe that water contains infectious contamination there is but one way to render it safe for drinking purposes, provided no other supply can be obtained, and that is by boiling. Simply heating the water to the boiling point is not sufficient for this purpose, for it must be continuously boiled for fifteen minutes in order that all germs which may be present are destroyed. The water should then be cooled and protected against further contamination. In no instance where the water is believed to be infected should either the so-called domestic filters or agents advertised to purify the water be substituted for boiled water, for they cannot be depended upon to protect, and are often worse than useless.

Thorough boiling renders the water somewhat "flat" to the taste, as the air which it contains is expelled by the heat, and although there are simple means of aeration, for instance, by agitating the water in an ordinary churn or by dropping the water through a tin plate containing numerous small holes, in order that it may be finely divided and better combine with the air. It is safer for a short period at least to drink the water as it is boiled than to employ means of aeration which through carelessness may again infect it, unless some person in the household is appointed to personally take charge of this work and prevent additional contamination.

Ice Water, A Frequent Medium of Disease

In connection with the subject of water it is proper that some reference should be made to ice.

It is a common belief that infectious organisms existing in water are destroyed when freezing takes place. This is not true, for some of the organisms survive the reduction of temperature and become active again when melting occurs; for instance, this has been conclusively proven in connection with typhoid fever.

Although ice may be obtained from water sources where there is no serious contamination, it is well known that it frequently comes from bodies of water which receive sewage directly from large towns. To what extent ice under these circumstances becomes involved it is of course impossible to determine.

It would seem practical and logical in protecting against impure ice that we should use the kind which so far as we can ascertain is most free from danger. Artificial ice is more apt to supply this need, for it is usually made from distilled water and therefore should be pure.

Not infrequently it is stated that artificial ice is rendered unsafe by the ammonia used in its manufacture. That is not so, for the ammonia does not come in direct contact with the water but is confined in pipes and used simply for freezing purposes.

A Pittsburgh Post Card
Originated and Distributed
by the Subscribers



Use the Telephone | Comm 403

Remodeling Building—Forced to Vacate

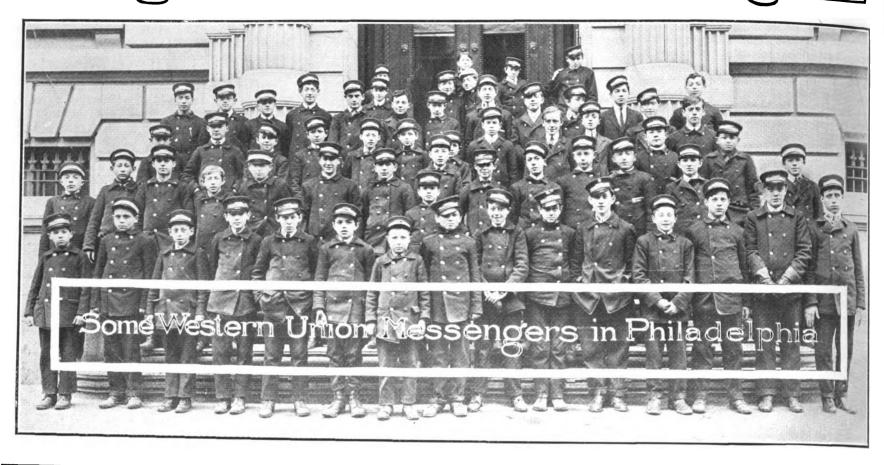
New Location

407 Fourth Ave.

Opposite Post Office

LORCH & HOFMEISTER FLORISTS

Use the Telephone | Court 403



At this moment when the annual roster of newly-sworn public officials is swollen by a political overturn sending great numbers of new members to Congress and to the Legislatures, a most timely and impressive valedictory, full of helpful suggestion to such initiates, has been pronounced by a public utilities commissioner after serving one term of five years.

The Hon. John B. Olmsted, of Buffalo, a member of the "upstate" Commission of New York, about to relinquish office, delivered at Amsterdam, in that state, an address which is so entirely unique and so thoroughly wise and sound that the Railway Business Association herewith publishes from it for national dissemination a passage having national interest.

What Regulation Taught One Regulator

Remarks by

HON. JOHN B. OLMSTED

Public Service Commissioner of New York State, in Connection with His Retirement from that Office, which He Entered with an Anti-Corporation View.

CAME into office with decided leanings towards the anti-corporation view of public utility questions. Some of my good friends among the corporation lawyers in Buffalo were kind enough to say that I was too much of an anarchist to be of much use as a commissioner. Want of knowledge as to the precise point involved I have found in many cases to be the principal cause of the prejudices I then entertained. Experience has taught me that there is another side to these questions, and one not lightly to be dismissed.

For instance, I held the view, as I imagine many another person holds the view, that the New York Central Railroad is grossly overcapitalized, and is paying dividends on a large amount of what is popularly known as water. When it came to my knowledge as a part of the evidence of a long investigation in the Buffalo. Rochester & Eastern case that the estimated cost of that company's 300 miles of railroad from Troy to Buffalo, planned without adequate allowances for terminal yards and facilities at either end, and touching but one or two large centers of population, was approximately one hundred millions of dollars, I came to the view

that the New York Central, with its four tracks running through the heart of so many great cities of the state, with all the attendant advantages to freight and passenger business, and with approximately 500 miles more trackage, including the vast and valuable terminal facilities of New York City, might possibly on a valuation measure up to a capitalization of five times that of the B. R. & E.

Managers Conciliatory

I have changed my mind also as to the attitude of most corporation managers towards the public. I had expected to find it recalcitrant and objurgatory, which is a Latinized and "more tenderer" way of saying that it was made up of kicks and damns. I have found it almost uniformly, when expressed in the presence of the Commission, conciliating and willing to abide by the results of a fair hearing. The difficulty with me has been not so much in getting the corporations to do what I thought was right as to determine in my own mind what under all the circumstances of certain cases was right.

I am fully aware that this is not the popular view of public service corporations, nor do I wish to be understood as having discovered wings on the shoulders of the managers thereof. I say that a better knowledge of the conditions under which their business is carried on brings one to a more just appreciation of some of the difficulties under which they labor. I know well that there are many, very many, particulars in which the service which they are rendering may be improved, as I know well that there are very many particulars in which the business of every man in this room might be improved if an inquiry into it were started by a commission armed with power. Such a commission would be at once met with the objection that its suggestions required too much of an outlay to carry them out, and would be asked how it proposed to provide the funds for the improvements recommended. Let us be reasonable as well as critical. Let us realize that the management of one thousand men on a street-car line is no less difficult than the management of an equal number in a factory, and that there are times when you have to do the best you can with the material with which you have to work.

"Straight" Street More Popular

I believe that in the past ten years a great change has come over the minds of men who are in the management of public utilities. There are still some left who cling to the old "public-bedamned" idea, but they are fast being supplanted, and the up-to-date railway or electric light official stands ready to listen to any reasonable complaint that may be brought to his attention, and, what is more to the point, to turn a deaf ear to proposals which call for abhorrent and forbidden methods in their accomplishment. I am not innocent enough to believe that all the dark, devious and easy ways of "getting there" have been wholly abandoned; but I do hold the view that the street called "Straight" is a much more popular thoroughfare than it used to be, and that the directors and agents of the corporations over which we have control are walking it with much cleaner consciences and with great gain to their selfrespect.

Risks of Investment

I have intimated that one great difficulty with certain corporations is the lack of means to carry out the improvements to service which their operating men admit would be advisable and desirable. On this point some figures from our last annual report may be illuminating. Out of 78 steam railroads reporting to the Commission in this state, only 27 paid any dividends for the current year. Out of 364 electric railroads, light. heat and power, and gas corporations, 237 paid no dividends. In 1909 it was 237 out of 310, so that conditions are improving some; but the figures are significant. They are contradictory to the general impression that dividends are the foundation upon which all public service corporations are erected, and they have a sobering effect upon an official who starts in with the idea of building Rome—or even Schenectady—in a day.

The consideration of them has not swayed the mind of the Commission where conditions have

Digitized by GOOSIC

become intolerable or even irritating; but they have at times prevented the attainment of ends which otherwise might have been ordered.

I know that these views are not wholly popular, and I know that in certain quarters the idea prevails that a public service commissioner should be pictured with a knot of thongs to lash the sides of all the hated corporations, irrespective of their merits or deserts. In my view, that savors too much of "Donnybrook Fair." I like the expression of President Taft, who quietly reminded his hearers on one occasion, as I recollect it, that the phrase "all the people" means just what it says, and that "all the people" included also the corporations, which are made up of people just as much as a municipality is.

Even-Handed Justice

The Public Service Commission is organized to hand out justice as near as it can determine it, both to shippers and to carriers, to consumers and to producers, and if it has attained some success in its work of the last five years, it has done so by a strict adherence to that view, and not by spectacular brandishings of the "big stick." It has accomplished more good by getting both parties before it, pointing out the strength or weakness of opposing views, and then appealing to that sense of fair play which is inherent in every man, than it ever has by a display of the tremendous powers which the law undoubtedly confers upon it.

More Suggestion Slips

In February the Camden District office received 41 suggestion slips from other department employees. The majority of them (26) originated from the Camden Plant, including those from Messrs. Applegate, Bozorth, Burton, Callis. Crowell, Dimond, Dudley, Graffen, Gilbert, Heckenhorn, Jacobs, Masters and Owens. The Trenton Plant department came next with five suggestions from Messrs. Coombs, Fell, Gares and Sanderson. In the Traffic department at Camden, Messrs. Figner and Lovekin and



Bridgeton Sub-District

About 1500 feet of 50-pair, 22-gauge cable and 2100 feet of 25-pair, 22-gauge cable has been erected on Irving Avenue and 1000 feet of 25-pair, 22-gauge cable on East Avenue, Bridgeton, to relieve open wire construction on joint electric light poles and also to provide additional facilities in this rapidly-growing section.

Camden District

The following is a copy of a letter received from the *Courier*, Camden, N. J., which explains itself:

"I want to compliment you and your office in the matter of handling the Methodist Conference news for this office from its staff correspondent attending the sessions in Atlantic City.

"While the daily service was above anything that we have yet had by telegraph, I was particularly pleased in the way you handled the appointments. Our correspondent tells me to-day that Bishop Berry concluded the reading of the appointments from the pulpit in the Atlantic City church at 4.01 P.M. last Tuesday. The fact that the Courier was on the street in Camden and selling like wildfire at 4.20 is a strong testimonial of the service we enjoyed through your office, and it was only through your good work that the Courier was the first newspaper anywhere to announce the complete list of appointments. We even were ahead of Atlantic City newspapers by ten minutes; and, believe me, that is 'going some,' as they say."

A trained nurse was recently called in to take charge of a serious case and upon arriving at the residence found no Bell telephone. She immediately informed the parents of the patient that she would not accept the assignment unless a telephone were installed at once.

A.M. Next day the District Manager received the following letter from the new subscriber: "Gentlemen:

I want to express my appreciation for the courtesy and prompt service rendered by your Company by installing the telephone in my residence before noon. I was both surprised and delighted, as it was necessary to have it without delay.

Respectfully yours,

WRIGGINS.

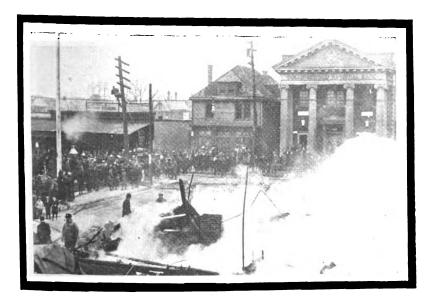
West Chester District

A subscriber in the West Chester District was talking with one of our representatives recently and remarked, "I always knew that the Bell (Tel. Co.) is up to date, all right, but I didn't know that it followed things so closely as to send out green bills on St. Patrick's Day." The subscriber had had his telephone taken out and happened to receive one of our standard green final bills on March 17.

Salesman Glauner of the West Chester District superseded the Pownall Hardware Company of Coatesville, Pa., from a direct line with one extension to a No. 2 private branch exchange with five stations—a gain of three stations.

One of our subscribers in the country near Avondale while looking out of his window saw his neighbor's horse running away. He immediately "used the Bell" and the horses were stopped before they could do any damage or get off the neighbor's farm.

The West Chester Chief Operator had a longdistance call for "The Brindlevine Mush Company." She advised the long-distance operator





Belated Photographs of Collingswood, N. J., Fire

(Courtesy of The Philadelphia Press)

Miss Sparks sent four slips. Mr. H. N. Rounsefell, Publicity department, forwarded three, Miss Jenkins, Trenton Traffic, two, and Mr. Farnsbacht, Plant Philadelphia, one. Revenue totaling nearly \$300 resulted.

A request was made for the Commercial department to issue an emergency order at 9.30 A. M., and the District Foreman was able to get hold of a gang and two installers shortly after 10 o'clock. The installation was O.K.ed at 11.45

that West Chester had nothing listed under same. After pursuing every means of investigation, she found that the subscriber wanted was "The Brandywine Mushroom Company."

GREEN FIELD.

Altoona District

20

During the first three weeks of March six private branch exchange applications were secured in the Altoona District, as follows:

| Name | District | P.B.X. | Stations |
|--------------------|----------|--------|----------|
| W. E. Hoffman Co., | Tyrone | No. 2 | 5 |
| A. A. Stevens, | • • • | No. 2 | 6 |
| Arlington Hotel, | " | No. 1 | 30 |
| Garman House, | " | No. 1 | 21 |
| Ward House, | " | No. 1 | 30 |
| Reid Tobacco Co., | Altoona | No. 2 | 5 |
| | | | |

An oculist at Phillipsburg recently requested that he be supplied with a Blue Bell shade to be used in connection with testing his patients' eyes. He stated that the letters on this shade were the exact size that he desired to use, and that he felt that placed at a distance from the patient's eye would give most excellent results. As an advertisement it appealed to our Commercial representative and the request was granted.

A new subscriber at Tyrone was supplied with the postcards reading "I now have Bell telephone One of her friends who received a card called the new subscriber and requested that she notify the business office that she also desired service. At the time of securing the second application the salesman was requested to leave a supply of these postcards.

Confusion Worse Confounded

A Lewistown (Pa.) subscriber related this experience:

"I walked into the Post Office recently for my mail and thought I saw a foreigner taking the mail out of my box. I was just about to ask him who gave him the authority to collect my mail, when it dawned upon me that the number of the box from which he was taking the mail was not my Post Office box number, but my Bell telephone number!"

A Johnstonburg merchant, about to place a call for a near-by town, was advised by a traveling salesman to use the Bell and he would be sure to get good service. The advice was followed, with satisfactory results.

The following is a copy of a sign which has been placed in the waiting room of the railroad station at Tyrone:

"TO WOMEN WHO TRAVEL.

The Civic Club of the Women of Tyrone will be glad to furnish information concerning a suitable lodging and boarding place by day or week, upon calling or telephoning to

Mrs. Grace Burkett, 1026 Lincoln Ave., Bell Tel. 124R.

Mrs. Ella Guver, 934 Wash. Ave., Bell Tel. 90L. Mrs. C. B. Nicholson, 1st Nat'l Bank Bldg., Bell

Evidently particular stress is laid on the fact hat the members of the committee have Bell telephone service.

While in the central office at Lewistown, a few days ago, a traveling salesman informed the clerk that he sold a \$1500 article over the tele-

phone and his toll bill was \$8.00. Before leaving he said, "That is the way we cut down expenses. I find the telephone a perfectly satisfactory way to carry on my business.'

A sales manager of a Ridgway manufacturer, in acknowledging receipt of his 1913 Western Union collect card, said that he found it very useful. While in New York he had endeavored to get a registered letter from the Post Office. He gave as identification several letters and business cards, but they were not accepted as sufficient identification. Finally he produced his collect card, and the registered letter was turned over to him.

Harrisburg District

The following "boost" letter was received by Local Manager Jacobs at Waynesboro, Pa.:

We are pleased to inform you that yesterday we received a telephone order from one farmer on the Ringgold line for goods amounting to about

"The interesting feature about this sale is that we would not have received the business had not this farmer been equipped with a Bell telephone. Our business in this district has greatly increased since these people have telephones connected with the Waynesboro exchange. This will explain to you why we were so very anxious to have the line built.

> Very truly, Daniel Rinehart."

At the Majestic Theater, Harrisburg, on April 1, the Tyrone Division shopmen of the Pennsylvania Railroad Company held a band concert. Railroad signals known as "upper quadrants' were arranged to show the standard light and indicate that the track was clear before the program was begun.

In addition arrangements were made by S. B. Watts, Local Manager, to transmit the music by telephone to patients in the Harrisburg Hospital. The object of the concert is to raise funds for the hospital.

Early Telephone Development in Reading, Pa.

When Henry W. Spang, a resident of Reading, was superintendent of the Philadelphia, Reading & Pottsville telegraph lines he began experimenting with Thomas A. Edison's telephone. He had seen Alexander G. Bell's telephone at the Centennial Exhibition, Philadelphia, in 1876, says the Reading Eagle. Mr. Spang put up short experimental lines in Reading, but they did not prove entirely satisfactory. Francis Blake introduced his transmitter in 1878, which Mr. Spang adopted and worked satisfactorily.

The first telephone line in Reading was put up nearly forty years ago, and it proved a great curiosity. It extended from the office of the Reading Hardware Company, foot of South Sixth Street, to the foundry at Tenth and Spruce Streets. The wires were run by way of South Street and some distance along the Reading Railroad, being attached there to P. & R. telegraph poles by permission, and then up to Tenth Street. Some poles were specially erected for the purpose by the hardware company. An Eagle reporter was present by invitation when the line was tested

Shortly thereafter a Methodist conference was held in Reading, and a number of the clergymen were invited to inspect the telephone. Samuel

Tenth and Spruce Streets, played a mouth-organ there, and the clergymen were astonished at the electric transmission of the music to the office at the foot of Sixth Street, where they were. This telephone line was used for years.

In the fall of 1879 Mr. Spang introduced to the public the results of his telephonic experiments. A telephone was placed in Charles A. Ringle's book store, 627 Penn Street, and many persons inspected it. July 19, 1880, the Eastern Pennsylvania Telephone Company was organized with H. W. Spang as president and general manager, and Isaac Y. Spang as secretary and treasurer. The company was chartered in December, 1880, and began business January 1, 1881, with the office and exchange in the Reading Eagle building, Sixth and Penn Streets. Lines were extended into Lebanon, Schuylkill and Montgomery Counties. The original stockholders were Henry W. Spang, Daniel Spang, Cassius Hotlon, F. S. Jacobs and H. D. Van Horn.

July 10, 1882, Henry W. Spang sold out his interest to the Eastern Pennsylvania Telephone Company. At that time the company had 45913 miles of wires, including 11 miles in Reading. January 1, 1883, the entire telephone plant of the Eastern Pennsylvania Telephone Company, including the instruments, poles and wires, was transferred to the Pennsylvania Telephone Company, which had extended its wires from Harrisburg to Lebanon. Long-distance telephones were supplied wherever desired. The telephone exchange was removed from the Eagle Building to the northern portion of the Keystone House, now the Hotel Penn; thence to the Times Building; from there to the Pennsylvania Trust Company Building; and finally to North Fifth Street above Court.

Scranton District

Owners of the Westminster Hotel at Scranton, Pa., have signed an application for private branch exchange service with an initial installation of 4 trunks and 62 stations. This will make the third hotel in Scranton with this class of service.

SMITHING.

Wilkes-Barre District

The Secretary of the Wilkes-Barre Chamber of Commerce wrote enthusiastically regarding the booklet, "Our Telephone Service," by Elbert Hubbard. "I have read the booklet," said he. "from beginning to end with great pleasure."

A Wilkes-Barre subscriber who is a member of a secret organization was in Philadelphia attending a convention, when one of his sons was shot and instantly killed by a younger son. Several members of the organization that remained at home were very anxious to inform him by telephone, but were unable to give our Traffic department any definite address. After calling a number of hotels in Philadelphia, he was finally located at a relative's residence in Camden, N. J. Members of the local organization were so well pleased that to show their appreciation they presented the operator and supervisor that handled the call at Wilkes-Barre each with gold coin. It was explained to the committee that the work performed was the duty of the operator, and that we would be better pleased if no gift were presented, but they were so persistent that there was nothing to do but to accept. SHAFER.

Williamsport District

A prominent citizen of Bellefonte says that he undoubtedly prevented a bad fire by making Jones, the superintendent of the foundry at prompt use of his telephone in reporting it.

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Private Branch Exchange Inspectors in Philadelphia

There are in service in Philadelphia 1351 No.1 private branch exchanges, of which 339 have four or more trunk lines and are considered, therefore, to present more or less difficult service problems. About two and one half years ago this problem seemed of sufficient importance to warrant the appointment of a Private Branch Exchange Inspector who would give his whole attention to this work under the direction of the Traffic Supervisor having charge of service inspections. There are to-day one man and two women engaged in this work, and the results of this attempt to educate branch exchange subscribers and operators to adopt standard methods have been extremely gratifying both to our subscribers and to us.

A complete card record of all branch exchanges is maintained, those having less than four trunks and those having four or more trunks being classified separately. Regular inspections are made of all branch exchanges, the smaller ones of under four trunks being visited about twice a year, the larger about every two months, and some of the very large ones as often as once a week.

This department is notified of each branch exchange installation approximately twenty-four hours before it is completed, and when the connection is O.K.ed one of the Inspectors is always on hand to explain to the subscriber the handling of the switchboard. Especially when the person who is to operate the new branch exchange has had no experience in this kind of work, the instruction by the Inspector is invaluable. Branch exchange operators are instructed in the proper handling of cords and the putting up of night cords. They are shown the necessity of prompt disconnections and, in the use of trunk lines, the advantage of working from the highest to the lowest numbered trunk, for the reason that since the central office operators always work from the lowest to the highest numbered trunks this method reduces the delay on account of interference and busy tests to a minimum and speeds up both incoming and outgoing service. The Inspectors also keep all branch exchange operators informed of any changes in the Telephone Company's operating methods. All branch exchange operators are urged to cooperate with the central office operator for the general betterment of the service.

One of the most important and at the same time most difficult tasks of the department is educating branch exchange subscribers not to hang up after they have asked their operator to get them a certain person at a certain number and wait for the operator to recall them when she has reached the person desired. This practice not only says "My time is more valuable than yours; you can wait for me," but shows a lack of courtesy which would not be tolerated in any other form of personal communication. It works to the subscriber's own disadvantage, moreover, because it tends to impede the service. The operator is often obliged to close her listening key on the trunk line over which the call has been given in, while the number called is being rung in order to give her attention to other trunks or connections. Then when the called branch exchange operator answers, there is no one on the line and she, of course, disconnects. All of this necessitates the whole operation being repeated and subjects the called subscriber to no little annoyance.

A great deal has been accomplished in this direction. One of our largest subscribers, The Philadelphia Electric Company, has issued a bulletin to all employees forbidding this practice except in a few special cases. However, there is yet much to be done and other employees, especially salesmen, can aid the Traffic department in discouraging this method of calling.

Passing Mention

Mr. Emmett Cotton Bates and Miss Rose Laub were married in Grace Reformed Church, Pittsburgh, Pa., on Wednesday evening, April 2, by the Rev. Dr. J. H. Prugh. A large number of guests were present and the affair was excellently appointed.

After a supper in the German Club, Mr. Bates and his bride left for an Eastern trip.

They will be at home in Ralston Place, Mt. Lebanon, Pittsburgh, after June 1.

Mr. Bates is District Manager for the Central District Telephone Company at Pittsburgh, having charge of the Pittsburgh office and the McKeesport and Washington sub-districts.

He first entered the employ of the Company as a salesman in Rochester, Pa., in 1903. Four years later he took up sublicense work. In 1909 he was appointed railway agent, in which capacity he conducted dealings between the Telephone Company and various railroads operating in the Pittsburgh Division. In September, 1910, he was made Local Manager of the "Downtown" Pittsburgh office; one year later Contract Manager, and in November, 1912, District Manager.

It Depends

Student in Physics: "Could you get a shock by holding onto the receiver of a telephone?"

Professor: "It depends upon who is talking."

—Exchange.

Building Boats by Telephone

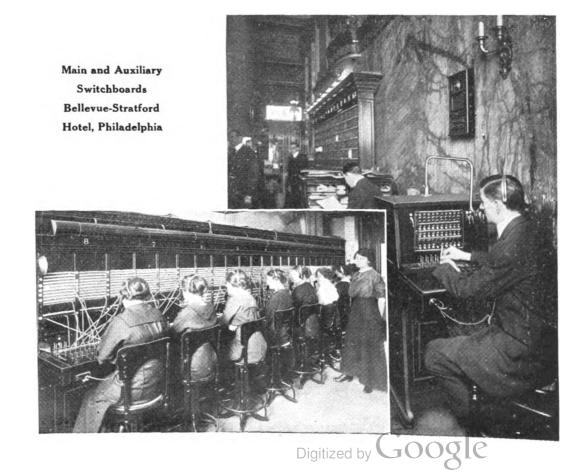
The new battleship "New York," under construction in the Brooklyn Navy Yard, is being superintended by Lieutenant-Commander W. B. Tardy of the Engineering Department of the United States Navy. When he was quarantined owing to diphtheria in his family, he continued his work of direction by telephone. All of Uncle Sam's men are telephone users.

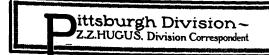
Additional Equipment in Bellevue-Stratford Hotel, Philadelphia

The illustration of the branch exchange switch-board of the Bellevue-Stratford Hotel which accompanies this article shows the two new positions which have recently been added to take care of an increase of 265 stations. These have been installed in the 250 rooms lately added to the hotel. Fifteen additional trunk lines have also been provided to accommodate the increased traffic between the hotel and the outside world. Four of these trunks, connected directly with the A. T. & T. switchboard, are handled as tandem trunks and are used only for long-distance business.

The addition of this new equipment makes the total telephone equipment of the hotel comprise 39 trunk lines and 866 stations.

In addition to the large eight-position switch-board located on the seventeenth floor at the top of the hotel, an auxiliary one-position switch-board (a view of which is also shown) is located on the street floor directly back of the desk. This is connected with the larger board by tie lines and is used for calls from the desk to the hotel rooms, for calls between employees of the hotel, and for "inquiry" calls from the outside which the operators at the main switchboard cannot conveniently handle.





Butler District

An application for two trunk lines and twelve stations was recently obtained by the Oil City Manager from the Venango Manufacturing Company at Franklin, Pa. This will supersede two two-party line stations. With the installation of this switchboard the Company will have sixteen private branch exchange subscribers in the Oil City sub-district, making the eighth installation of its kind for the Oil City Plant Chief within a vear. The total is 39 trunk lines and 397 P.B.X. stations in service. The Chicago Pneumatic Tool Company's original application called for eighteen stations, and since May, 1912, ten additional stations have been added. The Jos. Reid Gas Engine Company of Oil City has increased its system six stations during the past six months.

Erie District

A copy of the A. T. & T. Company's booklet, "Welfare Work on Behalf of Telephone Operators," brought the following reply from an official of the Erie Business College:

"Thank you for the pamphlet you sent me. I read every word of it. It was very interesting and instructive."

YOUNG.

New Castle District

One of our New Castle subscribers called at the office and requested that telephone service be established at a farm some distance from the city where his daughter is staying at the present time. He was very anxious that this telephone be installed as soon as possible, as he stated that his little daughter would not go to bed at nights without first bidding her mother goodnight. Thus the Bell telephone met another peculiar situation. HARPER.

Pittsburgh District

It occurred at a downtown club in Pittsburgh and shows what is thought of Bell service there.

A clubman picked up a telephone directory of the opposition company and began leafing through it.

"Beg pardon, sir," quickly came from an attendant, "you have the wrong book; I'll get you a *Bell* directory."

The clubman declined; he was merely satisfying his curiosity, he said.

The following letter was received following the relocation of a telephone which had not been satisfactorily placed at installation.
"Dear Sirs:

Enclosed find check for telephone service for month of March, 1913, also thanks for the prompt and satisfactory adjustment of my telephone difficulty. The men sent knew their business, and have placed my telephone in such a way that I feel sure I will not have any more trouble.

Yours truly.'

Johnstown District

The following letter was sent by a Greensburg barber to his patrons, present and prospective.

He is an "exclusive" Bell subscriber and has his telephone number printed on all his letterheads.

"Dear Sir:—I desire to call your attention to my barber shop. . . .

"I would also call your attention to the fact that I have efficient telephone service and would be glad to have you use it in making appointments with me.

"Your patronage is earnestly solicited.
"Yours very respectfully,

A recent applicant for service near Johnstown was a woman ninety-three years of age who had been canvassed by the opposition but finally decided to take Bell service because it reached her friends in Johnstown. She is receiving service on a multiparty line connected with our Johnstown exchange.

Electric scupp () 1 ()

Mayer's Store, Fairmont, W. Va.





Uniontown District

The Company's quarters at Fairmont, W. Va., have been enlarged and rearranged, adding greatly to the comfort and convenience of the employees of the several departments. The business office was moved from the Skinner Building to the Watson Building, where a new room was secured, providing very attractive quarters for this department. The partitions between the former Commercial office and terminal room were taken down, providing space for the Plant Chief and his force and the Wire Chief. Additional space was secured adjoining the operating room, to be used as reading and rest rooms and dining room for the operating force. A newspaper man, who was one of the visitors shown through the central office shortly after these improvements were completed, published a long article dealing with the extensions made and dwelling particularly on the welfare side of the subject as demonstrated by the improved working quarters, the reading and lunch

room for operators, the reduced working hours for operators, and the sick benefit and insurance features which had recently been introduced for the benefit of all employees.

In our last issue we told of a Clarksburg subscriber who notified the local office that he was moving. When a representative called at the former address he was informed that the telephone was packed in a trunk ready to be moved with the other household goods. An interesting sequel to this story is that the house was burned and the Wire Chief reported the instrument destroyed. On subsequent investigation it developed that the trunk containing the telephone was one of the few articles saved from the burning building.

While the recent flood disaster which caused so much destruction throughout certain sections of the country and a portion of this Company's territory did not affect any points in this district so far as destruction by water is concerned, it had

a very serious effect upon a great many lines of business. This was particularly true throughout what is known as the Connellsville coke region. There it was necessary to suspend operations for a part of the time at a number of the works, owing to the facts that the railroads were unable to move the product and the plants of some of the larger consumers of coke from this region at other points were closed because of the floods.

The Hope Natural Gas Company, with offices at Clarksburg, W. Va., has extensive telegraph lines reaching all the principal points covered by this Company's operations. During the recent high water on the Ohio River, Marietta, Ohio, was entirely cut off from communication with the outside world. When the Hope Natural Gas Company's telegraph lines into Marietta were submerged by the high water. in order to keep in touch with its interests in that vicinity, that company constructed temporary lines across the high water by means of pontoons. On Sunday the management of the gas company offered the use of one of these lines to the Manager of the joint office at Clarksburg, W. Va. The Western Union office at Pittsburgh was notified to send all Marietta business which was being held to the joint office at Clarksburg. From there it was taken by messenger to the office

of the Hope Natural Gas Company, and one of the joint office employees was kept busy at that point all day giving Marietta communication with the outside world over the line which was so generously offered by the gas company.

MISS HEPPLEWHITE.

The Central District Telephone Company

Effective April 2, the name of The Central District & Printing Telegraph Company was changed to The Central District Telephone Company. The change is one of name only and does not in any way affect the duties or obligations of the Company. The former name, which has been in use since the introduction of the printing telegraph in 1874, was not believed to identify the Company with the service which it now renders. For the convenience of the public and Company alike, the new name has been adopted.

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Organization Changes

The Bell Telephone Company of Pennsylvania

W. Ritchie, Division Manager's Office, Philadelphia, to Cashier, Germantown, Pa.

C. E. Merkel, Installation Foreman to Central Office Wire Chief, Williamsport, Pa.

H. O. Hohl, Construction Foreman to Plant Chief, Reading, Pa.

P. L. G. Hasskarl, Plant Wire Chief to Plant Chief, Pottsville, Pa.

S. H. Harkness, Groundman to Salesman, Plant Eastern to Chester Commercial.

B. H. Van Sickler, Groundman to Climber, Erie District.

Morton Burton, Climber to Installer Repairman, Erie, Pa.

H. R. Behrens, Special Inspector to Engineering Inspector, Harrisburg, Pa.

E. H. Weaver, Combination Man to Installer, Lancaster, Pa.

T. Powl, Combination Man to Installer, Lancaster, Pa.

O. Kendig, Groundman to Climber, Harrisburg District.

G. L. Boslet, Groundman to Climber, Altoona, Pa.

R. P. Selts, Groundman to Climber, Williamsport, Pa.

D. M. Cloak, District Engineer, Norristown to Plant Eleventh and Filbert Streets.

Wm. Erb, Jr., Student Engineer, transferred from Bell to C. D. Tel. Co.

H. B. Cowan, Student Engineer, transferred from Bell to C. D. Tel. Co.

William G. Moffett, Clerk, Pay Station Division to Traffic Engineer's Office.

W. J. Shultz, Morse Operator to Salesman, Wilkes-Barre District to Bloomsburg, Pa.

Jos. I. Dimond, Rights-of-Way Assistant, D. & A. T. & T. Co. to Philadelphia Division.

W. T. Roache, District Foreman to Special District Foreman, Germantown Equipment to Seventeenth and Filbert Equipment.

C. W. Brooks, Surveyor to District Foreman, Belmont Equipment to Germantown Equipment. Arnold Borel, Groundman to Climber, Erie

The Diamond State Telephone Company

District.

J. R. Valliant, Installation Foreman, Wilmington District to D. &. A., Eleventh and Filbert Streets.

F. B. Payne, Inspector to Installation Foreman, D. & A., Eleventh and Filbert Streets, to Wilmington District.

The Delaware & Atlantic Telegraph & Telephone Company

Jos. I. Diamond, Rights-of-Way Agent, Camden District, to Rights-of-Way Department, Philadelphia.

J. J. Bell, Rights-of-Way Assistant, Camden District, to Rights-of-Way Agent, Camden District, vice Jos. I. Diamond, transferred.

The Central District Telephone Company

Mary N. Todd, Teller to Clerk, Pittsburgh District.

E. H. Klingensmith, Teller to Adjuster, Pittsburgh District.

H. W. Miller, Adjuster to Collection Supervisor, Pittsburgh District.

E. C. Long, Stenographer to Clerk, Pittsburgh,

L. R. Foust, Surveyor to Fieldman, Pittsburgh, Pa.

Chas. Ostermaier, Line Order Foreman to Foreman, Pittsburgh District.

E. J. Kruse, Lineman to Climber, Pittsburgh District.

Louis Miller, Lineman to Climber, Pittsburgh District.

G. D. Findling, Groundman to Climber, Wheeling District.

Arthur B. Preble, Repairman to Central Office Man, Steubenville, Ohio.

G. L. Reiman, Groundman to Climber, Pennsylvania District.

Lemar Dotts, Groundman to Climber, Pennsylvania District.

C. H. Harding, Groundman to Climber, Pennsylvania, District.

C. C. Lowe, Fieldman to Wire Chief, Johnstown, Pa.

Jas. Z. Brown, Supervising Foreman to Construction Inspector, Pittsburgh District.

G. A. Hineman, Cable Foreman to Splicer, Pittsburgh District.

George McCord, Foreman to Fieldman, Butler District to Charleroi Sub-District.

J. D. McMasters, Wire Chief to Fieldman, Johnstown District.

Katherine M. Killian, Clerk to Assistant Cashier, Butler District.

W. H. Morrow, Short Line Foreman to Line Order Foreman, Wheeling District.

Winter J. Beattie, Central Office Man to Inspector, Pennsylvania District to Pittsburgh District.

Albert F. Miller, Installer to Night Central Office Man, Pittsburgh District.

J. G. Torrence, Clerk to Foreman, Pittsburgh District.

W. H. Snyder, Repairman to Combination Man, New Kensington to Butler, Pa.

H. S. Price, Fieldman to Wire Chief, Pennsylvania District.

C. A. Ross, Wire Chief to Central Office Man, Oil City to Washington, Pa.

Arthur Faint, Repairman to Fieldman, Johnstown District.

Earl Cline, Repairman to Wire Chief, Oil City to Franklin, Pa.

B. C. Stolze, Repairman to Night Central Office Man, Wheeling, W. Va.

John Glitch, Shop Repairman to Installer, Wheeling District.

Geo. Pollock, Repairman to Central Office Man, Butler, Pa.

Elmer C. Burton, T. W. Burton, H. E. Cumberland, W. R. Costello, E. E. White and F. L. Stone, Repairmen to Combination Men, Butler, Pa.

John D. Beck, A. W. Corson, C. H. Lyons, I. L. Logue, M. L. Rooks and J. Milt Smith, Repairmen to Combination Men, Dubois, Pa.

C. E. Brown, Repairman to Combination Man, New Kensington, Pa.

C. R. Beck, Repairman to Combination Man, New Kensington, Pa.

P. M. Gourley, Repairman to Climber, New Kensington, Pa.

H. S. Lower, Repairman to Combination Man, New Kensington, Pa.

M. W. McKisson, Repairman to Climber, New Kensington, Pa.

Ora Childers, Climber to Combination Man, Brownsville, Pa.

Rugan Gower, Groundman to Climber, Brownsville, Pa.

Clarence Crossen, Groundman to Combination Man, Canonsburg, Pa.

Wm. Davis, Climber to Combination Man, Charleroi, Pa.

Wm. Elliott, J. W. Gaghagen, Lawrence Quinn, John A. Ross and S. A. Shipley, Repairmen to Combination Men, Greensburg, Pa.

C. H. Hitchcock, Installer to Substation Inspector, Johnstown, Pa.

R. L. Kidd, Central Office Man to Toll Line Inspector, Johnstown, Pa.

S. Croil, Repairman to Combination Man, Bedford, Pa.

Alfred Fyock, Repairman to Combination Man, Indiana, Pa.

R. G. Turns, Repairman to Combination Man, Indiana, Pa.

J. I. Hubbard, Repairman to Line Order Foreman, Johnstown, Pa.

J. E. Wagner, Repairman to Combination Man, Johnstown, Pa.

Geo. C. Judy, Repairman to Combination Man,

Johnstown, Pa.
G. A. Smith, Repairman to Combination Man,

Johnstown, Pa.
Edw. F. Mikulsky, Installer to Combination

Man, Johnstown, Pa. C. B. Hoover, Repairman to Combination Man,

Johnstown, Pa.
J. W. Duckworth, Climber to Combination

Man, Johnstown, Pa.
B. F. Specht, Repairman to Combination Man.

Johnstown, Pa.
Ralph Chronister, Climber to Combination

Man, Johnstown, Pa.
R. C. Devinney, Installer to Combination Man,

Johnstown, Pa.

Harry Blough, Repairman to Combination

Man, Johnstown, Pa.

C. J. Kistner, Student Installer to Groundman, Johnstown, Pa.

John S. Shannon, Student Installer to Groundman, Johnstown, Pa.

W. A. Williams, Climber to Line Order Foreman, Johnstown, Pa.

A. J. Thomas, Installer to Climber, Johnstown,

I. E. Beatty, Climber to Storekeeper, Johnstown, Pa.

H. W. Taylor, Assistant Fieldman to Central Office Man, Johnstown, Pa.

Geo. F. Davis, Jas. A. Gardner, Wm. Kirker and D. H. Smith, Repairmen to Combination Men, New Castle, Pa.

Geo. Miller, H. E. Reed and C. H. Robeson, Repairmen to Combination Men, Rochester, Pa.

G. D. Keetley, Norman Lininger, F. Z. Neal, A. B. Powell, H. S. Seiple and W. E. Williams, Repairmen to Combination Men, Sharon, Pa.

P. W. Hausler, W. A. Hedge, W. H. Lenox and Geo, Williams, Repairmen to Combination Men, Warren, Ohio,

Ed. Grasser, Repairman to Combination Man, Franklin, Pa.

H. B. Faloon, Installer to Combination Man, Franklin, Pa.

Harry Heath, R. Higby and L. D. Lawrence, Repairmen to Combination Men, Meadville, Pa.

Repairmen to Combination Men, Meadville, Pa. J. B. Irwin, Repairman to Combination Man, Oil City, Pa.

J. L. McClintock, Climber to Combination Man, Oil City, Pa.

Elmer Olson, Installer to Combination Man, Oil City, Pa.

M. C. Tyndall, Repairman to Combination Man, Oil City, Pa.



Our Societies

Northern Pennsylvania Telephone Society

Y. W. C. A. Lecture Hall, 65 N. Franklin St., Wilkes-Barre, Pa.

April 25.

Speaker: MR. F. H. BETHELL, PRESI-

Subject: Not announced.

The Philadelphia Telephone Society

At 8.06 P.M. the April 1 meeting was begun with nearly 500 members present. The orchestra rendered two selections, "Conservator" by Nicholson and "Boy Scouts of America" by Mackie-Beyer. The chorus also performed twice with Adam Geibel's "Heigh Ho-I Love You" and G. B. Nevin's "The Vesper Stars."

Nineteen applicants were elected to membership and Mr. J. C. Nowell to honorary membership.

The society's president, H. C. Kunkel, then introduced the speaker of the evening, Mr. W. A. Eipper, Supervisor of Maintenance, Philadelphia, as one who for fourteen years has been identified with maintenance work in Camden and Philadelphia and is known to all of us.

Mr. Eipper's paper was illustrated with 21 lantern slides showing central office work and equipment and charts of tests and inspections. As announced, its subject was "Telephone Maintenance and Some Recent Improvements in the Art."

After the address comments were made as follows: J. G. Emmons, Spruce Wire Chief, "Standard unit time studies on central office work and the consequent savings"; M. L. Lafferty, Kensington Wire Chief, "Scientific management in outside work"; P. E. Tillson, Assistant Engineer "I in the control of the con neer, "Line and cut-off relays"; E. J. Nathan, Assistant Engineer, "Switchboard moisture-proof copper strand cord"; J. M. Brown, Jr., Cashier, "Line orders and correction line orders"; D. S. Hilborn, Cable Testing Engineer, "Central location bureau for cable testing"; J. H. Babin, Electrolysis Engineer, "Electrolysis and its preventives in Philadelphia."

A rising vote of thanks to the speaker and adjournment followed.

The Transposition Club

The April meeting will be held on the 17th at Hotel Henry and will be addressed by C. E. Malley, Chief Toll Clerk, Pittsburgh. He has not announced his subject.

The Telephone Society of Pittsburgh

The meeting held March 28 in the Jenkins Arcade Building was addressed by Mr. Springer H. Moore, Counsel, whose subject was "The Way a Lawyer Sees It." Mr. Moore spoke particularly about rights of way and how the legal side of the Company's business affected the business as a whole.

He pointed out how the field employees may safeguard the Company's business and provide against legal difficulties arising.

The members were interested and instructed by the paper, and among those who responded with short talks were Messrs. Driver and Carey of Philadelphia and Clarkson, Bishop, Gillespie, Henderson and Clune of the Pittsburgh Division.

The Diamond State Telephone Society

601 Shipley Street, Wilmington, Del.

Thursday evening, April 17.

Speaker: M. E. Lescure, Traffic Supervisor, Delaware.

Subject: "Traffic Conditions in the Diamond State.

The first monthly meeting of the Bell Triangle Club, Allentown, Pa., District, was held March 20, 1913, in Allentown Crockery Hall with a large attendance. A paper entitled "The Wonderland of the Telephone" was read by Mr. A. Markle, Engineering Inspector. Various stereopticon views were used in connection with the paper.

The Cross Talk Club

Kugler's, Philadelphia. April 8.

The paper of the evening was presented by F. I. Daly, Assistant Secretary and Assistant Treas-His subject covered clearly and entertainingly "Some Functions of the Secretary and Treasurer."

Comments were made not only by several members but by Messrs. C. E. Malley and C. S. Krouse of Pittsburgh, T. L. Stewart and E. W. Skelton of New York and J. M. Erb of Harrisburg.

The Spare Pair Society

6A Parkway Building, Philadelphia "Cable Transfers"

Subjects Why they are made. How they are made. The results obtained.

Speakers J. A. Zelley. J. F. Osborne. J. G. Emmons.

Camden Telephone Society

Goff Building, 23 Broadway. Thursday, April 17, eight o'clock. Speaker: G. E. Gable, Copy Manager. Subject: "Sign-Posts of Publicity." Business matters of importance require a full attendance.

New Booth Signs

A new type of public telephone sign has been adopted as standard to accompany the "A" and types for use only where there are booths. It will be of porcelain, 18 inches wide by 5 inches deep, and will contain the word BOOTH in white letters on a blue field. In flange form it will be known as "AA" to be used with the "A" type of sign. The flat style will be known as the "BB" type for use with the "B" style of sign. The new signs will be in stock about May 1.

Organization Changes

W. P. Norris, Chief Clerk to General Commercial Superintendent, transferred to General Commercial Engineer's Office as Special Agent, supervising Western Union commercial relations.

M. B. Stallman, General Commercial Engineer's Office, at present supervising Western Union commercial relations, is assigned to the work of compiling a complete rate schedule for the entire territory, reporting to the General Commercial Engineer.

R. E. Lea, Chief Clerk, Germantown District Office, is appointed Chief Clerk to the General Commercial Superintendent.

(For other changes see page 23)

Philadelphia Replacements

At about eleven o'clock, Saturday evening, March 22, fire seriously damaged the main office of Hanscom Brothers, located at 734 Market Street, Philadelphia. Hanscom Brothers own a chain of restaurants and bakeries in different parts of Philadelphia. All these were connected by extension lines with a branch exchange, in the office at 734 Market Street, which was destroyed by the fire. This branch exchange operated a total of 25 stations and 7 trunk lines.

Immediately after the fire a request was received from Hanscom Brothers that service he established temporarily at 1230 Market Street, one of their branch stores. Fortunately the Plant department had on hand a switchboard which had been disconnected the day before, and was able to start work immediately without even issuing an order for emergency equipment kept on hand at the Western Electric Company's Philadelphia wareroom. By working without interruption the Plant department was able to finish the temporary installation before 5.30 P.M. Sunday, so that when Hanscom Brothers opened their temporary office on Monday morning complete telephone facilities were at their disposal.

Foreman Hoyer and installer Grandhomme. Thomas. Schaettle and Flinn are the men who sacrificed their Sunday to hasten this replacement.

Late in the afternoon on March 21 fire destroyed the laboratory of Munyon's Homeopathic Remedy Company, Fifty-third and Jefferson Streets, Philadelphia. Mr. Munyon's residence. which was near by, was not injured by the fire. but the telephone service was interrupted, since it had been connected through the private branch exchange in the laboratory.

Mr. Munyon requested that the service in his residence be restored as promptly as possible. Although considerable of the wire to the residence had been destroyed and the heat of the ruins hindered our men, a line to Mr. Munyon's residence was O.K.ed by 8 P.M., much to his gratification. Credit for this work is due to Messrs. Aldred and Painter, combination men, and Beaumont, cableman, who incidentally missed the meeting of The Spare Pair Society held on that evening.

Progress in Suburban Districts

A section of the No. 3 open trunk line between Gloucester and Woodbury, N. J., south of Camden, has just been changed from 50 open toll lines to high grade duplex aerial cable. The estimate included the placing of 14,500 feet or aerial cable. three 63-pair loading coil pots, and the removal of 135 miles of open wire and 575 ten-pin crossarms. The loading coil pots weigh approximately 1100 pounds each, and required four men with block and fall to handle them.

The line carries traffic to Gloucester, Woodbury, Bridgeton and vicinity.

On March 20 a further step was taken in the extension of our cable plant in the direction southwest of Philadelphia. There is now a 46-pair high grade cable direct from Philadelphia to Media. It includes both 14 and 16 gauge loaded circuits from Spruce central office and 19-gauge circuits from Preston central office. Morton. Swarthmore and Lansdowne, intermediate towns. all benefit by the change.

These changes in minimizing the number of open lines render our toll circuits less liable to interruption of service and in other ways benefit

the users. Digitized by GOOGLE



At the crest of the flood our office building (X) had nine feet of water in the terminal room

The Ohio Valley Flood

By Z. Z. Hugus, Division Correspondent, Pittsburgh

EASONABLE rains were heavier than ever this year in our territory west of Pittsburgh. The Ohio watersheds, with the Ohio and Muskingum Rivers as important outlets, were extraordinary sights during the latter part of March. In the northern part of the affected district, from Pittsburgh to Wheeling, the flood records were slightly under those of 1884, but southwest of Wheeling, along the Ohio River to the point at Cairo where that river joins the Mississippi, previous records were beaten by from a few inches to eight feet. Every Ohio River town bears record of the destruction, thus contributing to a total loss of millions of dollars. Fortunately the loss was confined mainly to property. The rising of water was with sufficient warning to enable nearly all of the people to reach places of safety. (See map on page 6.)

Where the Muskingum River joins with the Ohio at Marietta, Ohio, by far the greatest damage occurred. At that place the current was so swift and the back pressure so great that the waters forced their way entirely across the Ohio

River to the West Virginia side. This apparently resistless force formed a water dam for the natural flow of the Ohio, and caused the latter to back up for over thirty-six hours. As this continued, the Ohio, with an insufficient outlet, formed a pool that gained in volume until that whole river was swelled far beyond its usual levels as far north as Wheeling, ninety miles from the source of trouble. This, according to the newspapers, is the theory advanced by the Government engineers at Marietta and Parkersburg. It accounts for the lower records north and for the higher flood figures south of Wheeling.

In the northern towns and cities it began to rain about noon on Sunday, March 23, and continued almost without a break until Wednesday evening following. This fall on clay and rocky subsoils thus soon became serious.

At New Castle, Pa., the Neshannock and Shenango Rivers rapidly overflowed their banks—the Neshannock first, and the larger river (Shenango), which drains the Pymatuning Swamps, later. Over 5000 people were reported as temporarily homeless. For three nights and two days the electric light, city water and car service failed. Our office was reached by wading, by wagons or by boats.

About 550 lines were out of service, 260 of which were in the three 110-pair cables that reach Mahoningtown. These cables were supported by the Gardner Avenue bridge until it was washed away by the overflowing Shenango. This break occurred at 8 P.M., March 27. The only transportation company having passenger and freight service in and out of the city was the Pitts-burgh, Harmony & New Castle Railway Company (an electric railway). A special car was chartered March 28 (Friday), all the necessary repairs and equipment (8800 pounds) were "on the job" by Friday evening, and service was completely restored on the following Monday. Mill Run, a small stream running diagonally across the city of Meadville, Pa., from the northeast to the southwest, and passing through the business center, was raging Monday evening, and danger of a flood from that source was anticipated. Shortly after midnight a general fire alarm, the signal which had been agreed upon if Mill Run overflowed its banks, was sounded.

The basements of nearly all the buildings

The basements of nearly all the buildings in the business center were filled with water, and the water was about eighteen inches deep on the streets in that section. The motor which operates the elevator in the building in which our

Company is located was submerged and we were without elevator service until the afternoon of Saturday, April 5. It was impossible to get new parts on account of the congestion in express traffic. It was necessary to climb six flights of stairs to reach the business office for almost two weeks.

No trains arrived or left Meadville from Monday, March 24, until Friday evening, March 28. The first mail received after Monday was brought in on Friday. There was about three feet of water in the Erie Railroad passenger depot. All of the electric car lines were tied up and the city was without light for one night.

In Greenville, Pa., the Shenango River reached its highest point and made 500 people homeless for a time. The heaviest losers were the Bessemer Railroad Company, whose shops and yards were inundated for two days. Our Company had only twelve stations out of service, all of which were restored as promptly as the flood became low enough to permit access to them.

At Sharon, Pa., 548 lines and 783 stations were out of service. Record time was made in obtaining new stations, two switchboards, and a gas engine for charging purposes. A crew of nine men replaced all necessary equipment within six days.

serious that it broke off the poles and cable and buried them under an avalanche of rock and dirt. An emergency cable was obtained, and through the aid of the West Virginia Traction & Electric Company a baggage car was engaged to convey the men and cable to the scene of the break. By midnight all our Pittsburgh circuits and those of the A. T. & T. Co were working. The water came up so rapidly that this car was unable to return to Wheeling. Had it not been for this prompt piece of work in restoring the A. T. & T. lead with emergency cable, Wheeling would have been isolated telephonically during the entire flood.

On Thursday, March 27, gradually all toll lines throughout the Ohio Valley, except the Pittsburgh lead, began to go out of service. At 4:45 P.M. the last information was received from Marietta, Ohio, to the effect that the terminal room had two feet of water. The men, who had been obliged to leave, were outside in rowboats waiting to take the operators away should that action become necessary. Marietta was then cut off from outside communication by the washing away of the bridge across the Muskingum River. This bridge had supported our toll lines and the A. T. & T. Company lead.

From Marietta, a six-mile stretch of a 5-arm, 50-wire lead was out of the Charleston to Cuya-

of the flood had about nine feet of water in the terminal room, was that office. Two emergency charging sets were obtained from Pittsburgh, one of which was sent by a chartered boat to Marietta and the other to Martins Ferry. At Martins Ferry a gas engine and generator had been obtained from our landlord, and a water rheostat was used to charge the batteries sufficiently to keep them going for a day, until the emergency set was again received.

It was most fortunate during all of these difficuities that the B. & O. Railroad was open between Pittsburgh and Wheeling.

At Uhrichsville, Ohio, the Plant Chief obtained a 250-volt direct current circuit from the Pennsylvania Railroad shops, and with the aid of the water rheostats and resistances managed to keep his battery going. In fact, at Parkersburg and Uhrichsville ours was the only public utility credited with continuous service.

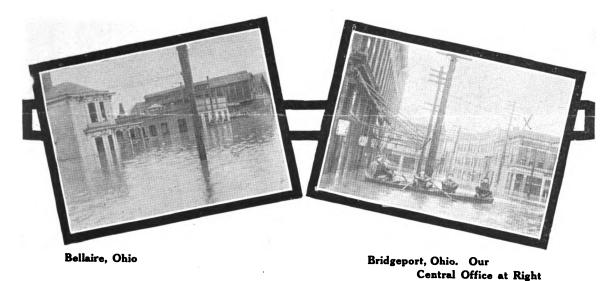
For Bellaire, Ohio, a gas engine was obtained in Wheeling, and with much struggling it was carried across Wheeling Creek and over Wheeling Hill and hauled to the B. & O. junction at Benwood. Through the courtesy of H. B. Greene, the Division Superintendent of the B. & O. Railroad Company, our men were provided with an engine and a baggage car to take the engine over the bridge to Bellaire. It was set up in the terminal room, belted to the charging generator, and served the desired purpose of keeping the Bellaire office in service.

In obtaining this service, as well as in numerous other instances, Plant Supervisor J. D. Gordon of Wheeling is justly credited with a most remarkable head for emergency action and pluck. His foresight served him repeatedly and his resourcefulness has often been commented upon by the Company's employees.

Early Thursday morning interruption to the Wheeling service was threatened because of the power plant becoming flooded. Through the courtesy of the city officials the service of a fire engine was secured to pump out the basement as fast as the water came in. If the telephone service had failed there, conditions in Wheeling would have been chaotic. This fire engine was used for sixty consecutive hours. On Friday morning when the crest of the flood approached (about 3:30 A.M.) it seemed as if our employees were to lose the fight. The water was coming up too fast for the fire engine to handle it. Another appeal was made to the city authorities. and although they demurred very strongly because it would lessen the protection of the city from fire, they sent another fire engine. The two engines fought the water off until the crest passed, when one engine took care of it for two days longer. Here also Mr. Gordon knew the solution.

At Parkersburg, W. C. Vaughan, Wire Chief, secured a fire engine and hand pumps in an effort to keep the Ohio River out of our central office building. He succeeded in keeping the water from our storage battery, and thus Bell telephone service was furnished without interruption in this city. And when the central office building was threatened by a disastrous fire which started in the town, our Wire Chief again used every possible means to protect our building. Fortunately the fire was gotten under control before it threatened our building.

The service of the city and railroad officials in this whole period of stress is credited by our Plant men with the greatest importance. Without their willingness and equal promptness our efforts would have been in vain.



Remarkable as it is, this is the second heavy flood along the Ohio River during the present year. Another was described and illustrated in our February 15 issue. Coming so soon after the other one, it is not strange that some of our Marietta subscribers became thoroughly discouraged. Here the previous high-water stage (1884) reached 52 feet 6 inches. The Government, in planning the foundation and grading for its post office building (shown in some of the illustrations), provided for floods. During the present flood the water rose to 58 feet 7 inches above the river bed, thus flooding the post office by six feet one inch.

Warnings and Line Destruction

Conditions on Tuesday, March 25, and Wednesday, 26, indicated a repetition of flood destruction. Reports then being received at Wheeling and Pittsburgh foretold that much of our plant was in danger of destruction.

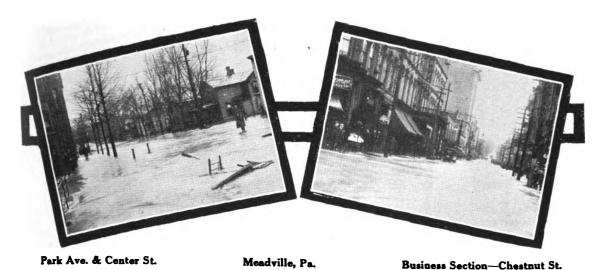
On Wednesday evening, the 26th, our first serious trouble occurred. The Pittsburgh-St. Louis lead of the A. T. & T. Company was torn down for five sections by a landslide at Roneys Point, seven miles east of Wheeling. This lead carries two arms of The Central District Telephone Company's circuits to Pittsburgh. The slide was so

hoga Falls lead, and the same distance of a 3-arm lead between Wheeling and Parkersburg. For long spaces the latter 40-feet lead was entirely submerged. Between Marietta and Parkersburg our 4-arm lead and an A. T. & T. Co. 4-arm lead were out. A Cambridge-Marietta 4-arm lead was out, and for a stretch of eight or nine miles nothing could be seen of a Marietta-McConnellsville single-arm lead.

Preparations were made Thursday morning in the Wheeling Sub-District for stocking the smaller offices with food and oil stoves (because during flood times the gas is usually turned off) and for a man in a rowboat to stay at each office. The foresight in this matter was all that kept offices situated like Benwood and Bridgeport in operation.

Light and Power

Maintenance troubles were further increased on Friday, when because of the unusually high stage of water the light and power companies could no longer furnish service. This cut off several of our common battery offices from the current supply and required resorting to all kinds of measures. Success was met in this from the fact that service in only one office in this whole district was interrupted. Marietta, which at the crest



Marietta Replacement

It was anticipated that our plant at Marietta. Ohio, would be most seriously damaged by the flood on account of the city's situation and because the junction of the Ohio and Muskingum Rivers is at that point. As soon as service to Marietta was interrupted on Thursday at 4:45 P.M., our men used every method that occurred to them to get a circuit to Marietta. On Friday morning Toll Station Lineman Hartman and Lineman Lookingbill volunteered to take a rowboat and start from Wheeling for Marietta in an effort to establish a circuit. An eighteen-foot rowboat was purchased, an experienced riverman hired to manage it, and they started out with about 10,000 feet of twist wire. By Saturday they had established a circuit to New Martinsville and by Sunday to Sistersville. Then a sixtvmile gale arose on the river and they were ordered to stay at Sistersville until the wind died down, because it was too dangerous to attempt to go down the river in a skiff.

On Friday morning an attempt was made to establish a circuit to Marietta through Cambridge, Ohio. Wire Chief H. S. Smith and Repairman Carper started on a C. & M. train about 9 A.M. on Saturday with 15,000 feet of twist. They got about halfway to Marietta, when the train could proceed no further on account of washouts. They secured a team and drove about eight miles, repairing a number of breaks. This brought them within ten miles of Lowell, where they secured a skiff and proceeded via the raging Muskingum River. They fastened the twist circuit to everything practicable that would hold it-electric light poles, trees-anything in line that was above the water. For a space of about three miles near Lowell they could just see the roofs (slanting tops) of the Cambridge-Marietta lead, and from the boat they fastened sticks to these pole roofs and drove big spikes in them and fastened the twist wire there. By these methods at 7 P.M. on Sunday a circuit was completed into Marietta. It was necessary to obtain the consent of the light and power company for the use of a pair of wires comprising their high-tension circuit, inasmuch as our own lead had been washed out completely for a distance of two miles from Marietta.

The damage to our toll plant was very heavy due to the water having in some cases come up to the bottom cross-arm or over the tops of the poles. As a result all the débris, small buildings such as garages, as well as trees became fastened into the wires and practically tore our toll leads to pieces. The same condition at Marietta, where the water came up over the tops of the poles, caused exceedingly heavy damage to our aerial cable plant. In some cases there were as many as from fifty to seventy-five breaks in a section of cable. As soon as we got a circuit into Mari-

Dandes Decuon—Chestnat Du

etta and realized the extent of the damage to our central office, preparations were made for getting a new terminal room from the Western Electric Company at Chicago, and a force of seventy-five installers were started from various cities and other points for Marietta. All material and men arrived in Wheeling, and at Wheeling everything possible in the shape of a boat was chartered to get the material to Marietta. Gasoline boats, coal barges, and anything that would safely and quickly get the material into the stricken towns of New Martinsville, Parkersburg and Marietta were secured.

The destruction to our plant in Marietta may better be realized when it is known that between 400 and 500 feet of aerial cable, messenger wire and poles were carried away and could not be found. Over 200 houses were lifted from their foundations, approximately 350 had water in the attics, and some of their owners may leave the city as a result of the property loss.

The resourcefulness of T. F. Irvine, of the Engineering Department, Pittsburgh, is notable. He started with a force of men to get to Marietta via Clarksburg and Parkersburg. Held up at Walker's Siding by a washout, he secured a motorboat, arrived at Parkersburg, and at Parkersburg obtained another boat and got into Marietta on Sunday afternoon. There he broke in a window of the terminal room, saw how high the water had risen and had damaged our equipment, returned to Parkersburg and informed our officers in Pittsburgh what it would be necessary to order to restore Marietta service.

M. P. Hartman, Toll Station Lineman, went down the raging Ohio in an eighteen-foot skiff in an attempt to restore service to Marietta. Though he did not reach Marietta, he reached the stricken towns of Sistersville and New Martinsville and opened communication with them.

The Wheeling Cable Foreman Miller handled Marietta and other emergency situations in a way that attracted attention not only from his immediate associates but from others familiar with the circumstances.

G. W. Thrall, District Line Foreman at Wheeling, handled the outside reconstruction of toll lines and subscriber plant in Marietta in such an excellent way that he beat the installation forces who were rehabilitating the central office. He directed the work of taking sixty-five men and equipment from Wheeling to Parkersburg and Marietta.

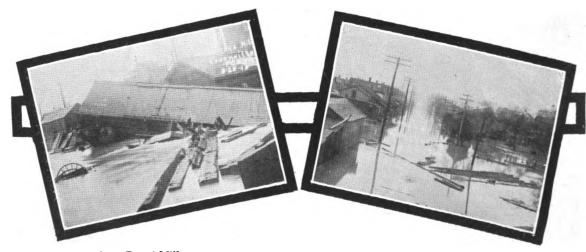
Telephone Traffic

In spite of the large number of telephones that were out of service on account of the homes and business places being flooded, the traffic load was simply enormous, making an unusual demand upon the battery supply. This was caused by the people being greatly excited and telephoning nearly everywhere and for everything. There being no means of transportation except boats for purely local use, the telephone was again used by the recipients of these messages. In almost all this territory the opposition companies were out completely. This threw the entire telephone load on the Bell System. And too much cannot be said in praise of the operators who remained in unheated buildings, made dangerous by the flooded conditions around them, and worked by the aid of candles and lanterns.

As previously mentioned, supplies such as oil stoves, fuel and food were sent to the smaller offices so that the employees might not be required to leave. Food was sent also to Marietta, where cooking was done by the employees. At Wheeling sixteen operators were housed at the Hotel McLure, and the same number elsewhere. Part of their meals were served at the hotel and part by the regular matron in our own building. These were operators living at Bellaire, Martins Ferry, Wheeling Island, South Wheeling and Warwood who could not get home. In Wheeling twentytwo men were provided for by the matron, including the firemen, the Wire Chief, central office men and Commercial employees. Over one hundred meals a day were served, and the matron's work did much toward keeping up the spirit of the men and operators under the trying conditions.

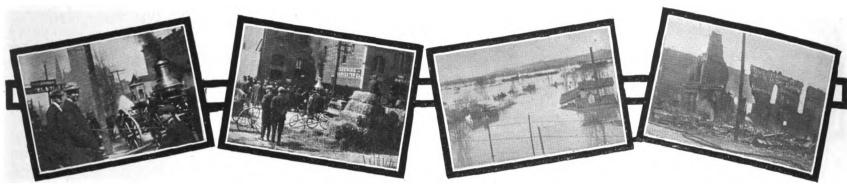
It is modest to term the work of our operators as heroic during all of these days and nights while the flood continued. When so many were needed at home, they remained loyal to their posts and they fully realized what their services meant to so many subscribers.

Our forces were increased by private branch exchange operators whose employers' offices had been flooded and by Commercial department em-



Ruins of Mathers Bros.' Mill

Greenville, Personal Constitution of Constitut



View of Fire Engine at Work

Parkersburg, W. Va.

Looking Across Ohio River Toward Belpre, Ohio

Ruins of Martin's Grocery Building

ployees who had had operating experience. Their services were offered and very gratefully received. At Sharon, two Central Union (Bell) telephone operators who were marooned at a hotel volunteered their services and worked on the day when traffic was at its height—another argument for "One Policy and One System." In Rochester, Pa., one operator rode to work in the cab of an engine.

On Thursday at 6 A.M. the Wheeling traffic load became as heavy as at the peak of a normal business day. The operator in charge obtained the aid of a switchboard man at the information desk. As signals came in on trouble cases and other work grew in leaps, the District Chief Operator, Miss Miner, took care of it without a supervisor or a chief operator. In one instance a Wheeling caller simply demanded service to Parkersburg although the circuits were not in working condition. The operator routed the call via Waynesburg and Morgantown -a roundabout way, but a satisfactory one under the circumstances. Her action was highly commended.

Nor may too much credit be given to those of our operators who continued to give service continuously to every telephone that was connected to offices like Benwood, Bridgeport and New Martinsville offices, in which the water reached from within six inches to three feet of the operating room floors. They were without heat, and in many cases had only candle-light. The food was only such as was possible to be conveyed to them in rowboats.

Naturally every effort was made to furnish surroundings as comfortable as conditions would permit. In towns like New Cumberland, Wellsburg, Benwood and New Martinsville, W. Va., the location of the central office made it impos-

sible to provide as pleasant surroundings as in some other place. Kerosene stoves and lanterns, food and water were, however, provided in those places. Hotel accommodations were provided at New Castle, Wheeling, Parkersburg, Steuben-ville and East Liverpool, where the operators' homes were either wet or inaccessible. Private houses were pressed into this service at Marietta for sixteen operators.

Connecting Company Losses

The connecting companies located in the flooded district were seriously affected and their loss is heavy. Along the Ohio and Muskingum Rivers there are thirteen of these companies.

At Powhattan Point the connecting company suffered heavy loss, as about fifty new telephones

were destroyed and pole lines were washed away.

At St. Marys, W. Va., the Citizens had nine feet of water in the central office, and the office equipment was damaged heavily.

The Lowell Farmers, at Lowell, Ohio, lost the entire central office equipment by fire, caused by a gas explosion which occurred during the height of the flood.

At Beverly, Ohio, the Beverly lost through lines being washed away and telephones being damaged. At this point fifty houses were washed away, and a larger part of them had telephones installed.

The heaviest loss among our connecting companies will be borne by the Riverside, at McConnellsville, Ohio. This company operated about 1500 telephones and about half of their plant was damaged and out of service.

Malta, Ohio, situated opposite McConnellsville, has about 400 telephones served by means of a 300-pair submarine cable. This cable was totally

destroyed, the pole line was washed away and the telephones were under water. The loss to that connecting company is conservatively estimated at

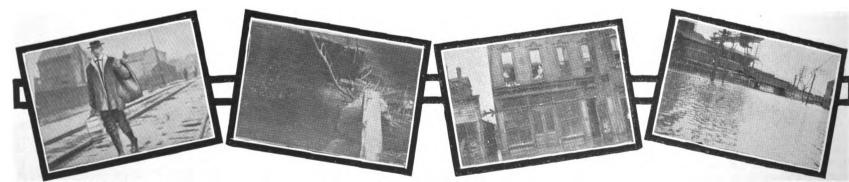
In all there were approximately 6000 connecting company stations affected, and one-third of that number were damaged. The loss is estimated at about \$17,000.

Headquarters at Wheeling

Many people were made homeless, and among them were a large number of our employees. The basements of the Wheeling office and of the Plant Supervisor's office were opened and the desks were used for beds Thursday, Friday and Saturday nights. The men were all kept in the vicinity of the central offices, or where they could be reached quickly. Meals for these employees were supplied by the Telephone Company, and some of the men worked from Tuesday night until Saturday with no sleep other than that obtained by lying on desks for short intervals.

In the Wheeling exchange area 650 lines were out and from 1500 to 1800 instruments had to be replaced, but by April 5 the number had been reduced approximately to 100, although new instruments and inside wiring were necessitated in many instances. The remaining stations were O.K.ed by April 8, as far as damage to subscribers' buildings permitted.

At Marietta the operating room is just above the terminal room. Water was in the storage batteries, in the relays and in the power plant. The main and intermediate frames were soaked. Water finally reached a point one foot from the ceiling of the terminal room. Service here was interrupted Thursday, March 27, at 4:45 and restored Sunday at 7 P.M.



Traffic Inspector Anderson taking food from Wheeling to the operators at Benwood, W. Va., four miles south of Wheeling. Picture taken Sunday morning just after the water had left the B. & O. R. R. tracks, where at its crest the water would have been above Anderson's head. Notice the deposit of mud.

Cable leading into what is called the Benwood Viaduct, about a half mile north of our Benwood, W. Va. office. At the time this picture was taken, Sunday morning, there was about ten feet of water in the viaduct. At its crest the water was above the cable and about three inches below the railroad ties of the B. & O. R. R. which runs over the viaduct.

Picture taken from a boat, Sunday morning, March 30, by Traffic Inspector Anderson, stationed in the street in front of our Benwood office. The two young women had at that time been in the office from Wednesday might March 26. They Wednesday night, March 26. They did not leave until the evening of did not leave until the evening of Sunday, March 30. Food was supplied from Wheeling via the hills, thence by boat. The arrow indicates the crest of the water early Saturday morning Digitized by

View of the Benwood Viaduct. This gives a better idea of the course of the Wheeling, Benwood and Moundsville cable containing trunks, etc. The black mark at the bridge indicates the height of the water at its crest.

At New Martinsville water was within six steps of the operating room and only 15 of a total of 364 stations remained in service.

It required but a brief time for employees in the territory surrounding the worst affected places to learn of the seriousness of the interruption. Their efforts to restore service were most commendable and gave ample testimony of their capabilities in emergencies. Dozens of instances occurred of which a few are mentioned in this article. In replacing the first circuits, temporary measures were of course adopted. An occasional pole was erected, twisted pair or emergency cable was placed, or any other type of construction was "approved" provided it formed a step toward service from the temporary equipment at Marietta. The switchboard there, placed in the operators' rest room, consisted of four sections of No. 102 type switchboard, from which service was furnished to thirty or more subscribers whose need was most urgent. They were the National Guard office, relief committees, fire department, hospitals, local police department, city officials and newspapers.

The railroad communication during the height of the flood was open only from Pittsburgh to Wheeling. All material had to be shipped by express to Wheeling, and from Wheeling reshipped by boat. The stricken towns were all eager for provisions, and the Governor of West Virginia pressed almost every craft on the river into service. That made it almost impossible to secure boats to take the necessary men and material to Marietta.

The spirit of our men in accomplishing things during this serious time may be shown by their resourcefulness. The Plant Chief at Steubenville, C. J. Johnson, was told at 7:30 on Friday evening to pack some dead arrestor plates in the Steubenville office and ship them to arrive in Wheeling at 9:40 so that we could reship them to Marietta. It was impossible at the time of the night for Johnson to get material to make packing cases, so he tore down the back fence about our building and used it for packing these arrestor plates. Had there been any delay on his part it would have meant a delay of two or three days in restoring service at Marietta.

At another time a boat had been chartered at Wheeling to transport some material from Chicago due in Marietta. A fire in Parkersburg caused the Governor to order the boat to leave Wheeling for Parkersburg with extra fire hose. The greater necessity upset our plans temporarily, but it was another instance of decisive action during emergencies.

When one thinks of the preparations necessarily made for the installation of a new office and the building of an outside plant for an exchange of 2000 stations, he can realize the job our employees did when we mention that in Marietta new central office equipment was installed, new outside plant put up, and in a week after the cut-over 1200 subscribers' stations were

in service. That was the total number of stations requested at that time, inasmuch as the remainder of our subscribers had not recovered from the disastrous flood sufficiently to return to their homes and businesses and request service.

Food

Providing edibles for the operators and others was not an easy matter. Boats were at a premium, and the services of those who could row in such currents were also scarce. At Benwood the water nearly reached the floor of the operating room and it looked as if there were danger of the building floating away at night. Two employees stayed from Wednesday until Sunday without leaving the office. Traffic Inspector Anderson of Wheeling took food four miles along the bank of the river in a boat to the isolated Benwood employees. On Saturday, for relief, he took two other operators to that office and with the aid of a stepladder helped them to get in the central office window. At Bridgeport also the operators stayed in the office.

Praise is due also to the Western Electric Company for the wonderful job done in getting

been received for emergency use, and saved the day. Serious danger of fire was thus averted by his presence of mind.

At Parkersburg, W. Va., when we were notified by the city authorities of the contemplated discontinuance of the water supply, our operators warned all large users and they drew a supply sufficient to answer their purposes until the city again supplied them.

On Friday, March 28, one of our operators learned from a Belpre (Ohio) subscriber to Parkersburg service that the "B. & O. Fill" on the Ohio side of the river was giving way and many lives were in danger. Our operators promptly got in touch with Superintendent Bryan of the B. & O. at Parkersburg and also with city officials. Superintendent Bryan promptly dispatched flatbottom cars and Mayor Murdock confiscated all boats in sight and sent them to Belpre. This action is believed to have saved the loss of many lives.

Newspaper and Other Credit

Everywhere recognition was given to the tele-



H. W. Wood, Traffic Supervisor, Wheeling District

Yood, W. H. Scatterday,
Toll Wire Chief,
or, Wheeling



Miss C. Conrad, Chief Operator, Wheeling



Miss M. L. Miner, Chief Operator, Wheeling Sub-District



F. L. Persons, Plant Chief, Wheeling

the requisitions filled for the emergency material needed during the flood, including one for 100 hams and 300 dozen eggs! That shipment traveled partly by boat and its arrival was greeted by the Marietta workers with the greatest of enthusiasm.

Use of Telephone Service

Temporary equipment was installed in the county offices at Marietta so that the public could communicate with out-of-town relatives and friends. Here and in other places our service was heavily used by the police forces and militia in obtaining food and supplies and in notifying superior officers of the progress made in restoring order. Telephones were installed in flood relief headquarters in a number of places and the numbers were at once made known to the public. At Wheeling one station was installed on the pier where relief boats landed.

At New Castle, Pa., the storage batteries used by the city fire alarm system were nearly exhausted. Our Plant Chief, A. T. Jenking, sent the Company's portable charging set, which had

phone for its rapid work in replacement of wet instruments, destroyed circuits and plant. Headliners in practically all local papers called attention to the telephone's part in clearing up the wrecked districts.

The Marietta Register-Leader appeared in single sheets, $9\frac{1}{2} \times 12\frac{1}{2}$, printed in typewriter form by multigraph or printograph. This occurred for several days when that newspaper's plant was under water.

The Sharon (Pa.) Telegraph, the Marietta Daily Times, the East Liverpool (Ohio) Tribune, the Washington (Pa.) Reporter, and dozens of other newspapers, printed complimentary editorials or statements about the rapid replacements and excellent operating work.

The New Castle papers were among those that credited the operating work with having saved many lives.

Commendatory letters were received from all sources, including private subscribers as well as public officials, relief committees, business firms and organizations of all kinds.

Center of Our Ohio, West Virginia and Pennsylvania Territory Damaged by the Worst Floods in History

01

THE TELEPHONE NEWS

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania The Central District Telephone Company The Delaware & Atlantic Telegraph & Teleph The Diamond State Telephone Company

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MAY 1, 1913

No. 9

Resourcefulness and Loyalty

HE very severeness and wide-spread influence of the recent flood conditions prevented the printing in our last issue of any comprehensive story of the great damage done and the splendid effort of our local forces in coping with each new emergency that arose.

Cut off as they were from communication with the outside world for nearly a week in many cases, there was little enough time for rest, much less for recording the happenings of those strenuous days. And even at this time the NEWS is able to do but scant justice to the conspicuous accomplishment of our employees who have contributed another and eventful page of telephone history.

While emergencies of this sort have been successfully met before, it is probable that on no previous occasion has the resourcefulness of so many of the men and women "on the job" been put to such a test. For with reports of serious trouble originating hourly from widely scattered points, and with conditions constantly growing more serious throughout a territory as great as the one affected, there was little opportunity for Brown to help out his neighbor Smith down the valley, or for Miss Jones to relieve Miss White in the adjacent exchange. It was everyone for himself or herself,—and the splendid part of it all is that no one whimpered.

Not a single report of trouble can be found which does not ring with the assurance that—bad as conditions were—steps had been taken not only to relieve the situation but to meet the next turn of fate, be it good or bad.

No one who is familiar with telephone work can fail to read into the main article of this issue a sermon on efficiency and loyalty. To the layman, even, its import cannot be lost. For effort of this sort is none the less to be applauded by reason of its association with the word "duty,"-nor

are these men and women any less deserving of popular tribute by reason of their love of the kind of work which puts a premium on cool heads and a stiff lower jaw.

The successful attempt to string a toll circuit composed of sections of out-of-service wire, twisted pair and bare wire over the tops of flooded pole lines, over trees, buildings and fences has seldom if ever been paralleled. Nor have we ever witnessed so general an appreciation of the value and the requirement of continuous

The rushing of men and supplies to the stricken sections, the dozens of prompt decisions—with scant opportunity for consideration or consultation—the voluntary reporting for work of the off-duty operators and Plant men, are all evidences of the type of personal interest and loyalty which, while not obtainable in some businesses, is always apparent in ours.

The public and the Company appreciate it all. Letters are on file in offices in the affected district thanking us for "splendid service during flood conditions." The Baltimore & Ohio agent at Moundsville, W. Va., a jeweler at Altoona, the superintendent of an illuminating company at New Brighton, Pa., a stove works at Rochester, Pa., representatives of two newspapers at Beaver Falls, Pa., are among the hundreds who wrote such voluntary commendations.

The Company's appreciation is not shown in words alone; a wealth of evidences of its profound interest in the welfare and assured happiness of its men and women is available to the most casual observer.

And just as the history of this fine performance of loyal interest and observance of duty year in and year out continues, so are we encouraged to believe time will not be when the pointer shall fail to indicate a Bell organization which is not living up to the splendid and unfailing example of lovalty and efficiency which has gone before.

Don't Limit the Menu

WEN WISTER is credited with this story of a waiter in a Western restaurant: A patron picked up a menu and proceeded to order an elaborate dinner. The waiter, in typical unconventional garb, pulled a forty-four from a back pocket and said,—"You'll take hash!"

Let's be careful not to act the part of the waiter-be the act ever so guardedin any of our dealings with the Company's patrons. They are humans and so are

Cheerfulness—An Asset

The man who cannot laugh is fit only for treasons, stratagems and Shoils - CARLVIE

GOOD laugh is better than medicine. This almost axiomatic sentiment is the text of the newest campaign of a big Western railroad. Not that the "Safety First" warning has already been forgotten, but that the man with a smile is worth two with a grouchto himself and his employer.

Here is the first bulletin from this Railroad Company to its thousands of em-

"A good laugh is better than medicine. Learn how to tell a story. Learn how to keep your troubles to yourself. The world is too busy to care for your ills and troubles. Learn to hide your pains and aches under pleasant smiles. Meet everyone with a smile. A good-humored man or woman always is welcome. Above all give pleasure.'

The tonic effect of laughter is admitted by most of us. It relaxes and refreshes. We, too, believe that the man with a smile is worth two with a grouch. What do you

"The Long-Winded Dictator" (From "The Stenographer," January, 1913)

General Manager of a large concern in looking into the reasons why the heads of his various departments were so far back in their work and failed to keep abreast of things, found that the main trouble lay in the correspondence department; the letters were too long, too roundabout; the ease of dictating is apt to get men into the talk habit; a man is likely to take a good many words to say a thing if he just talks along. Well, he called the men together and in a talk pointed out that brevity and conciseness, without bluntness or discourtesy, would make the house more popular with the people receiving the letters, because no one wants to read letters of 400 words when 50 or 100 words would cover the matter. The results were soon apparent and led to improvement throughout; the brevity urged developed forcefulness and the stenographers in turn were very much cheered and helped in the day's work.

One house of which we are aware makes it a rule, which is seldom broken, of restricting letters to one page, double space; and it must be a very profound subject, in the ordinary course of business, which cannot be covered concisely and yet courteously in the measure of a page.



LEFT
Marietta Residence
Section

RIGHT Emergency Installers During Lunch Hour

LEFT
Marietta
A. T. & T. Co. Lead North

RIGHT
Marietta
Temporary Switchboard
in Rest Room

LEFT
One-Half Block From
Our Marietta Office

RIGHT
Marietta Post Office
Six Feet Under Water

LEFT
Marietta
Putnam Street Bridge
Carrying Cable

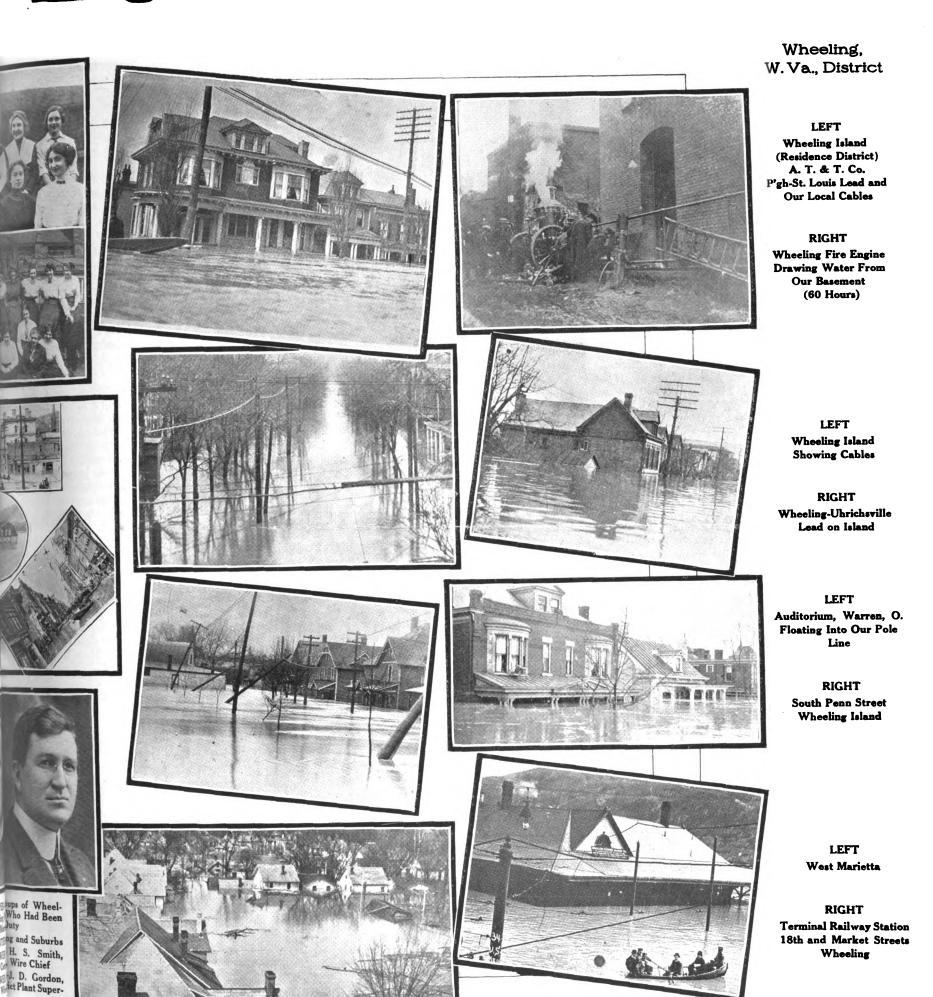
RIGHT
Main Street, Wheeling,
Wholesale District



OHIO RIVER FLOOD VIEWS, 191

May 1

9



WHEELING, W. VA., DISTRICT



March suggestions for this division added \$3438 worth of revenue to our new business record, divided as follows: Atlantic \$390, Bridgeton \$138, Camden \$389, Dover \$314, Doylestown \$72, Norristown \$660, Trenton \$676, West Chester \$454, Wilmington \$345. Plant and Traffic departments were represented in every district. Additional equipment bore no slight relation to the total gain, showing a genuine appreciation among the department employees of the sales opportunities. As a whole the Plant work brought \$2590 worth of business and the Traffic \$848. Revenue was obtained from the employees' slips, valued at from \$130 (leader's total) to \$50. Arranged numerically according to results the names read in this order:

J. J. Connelly, Jenkintown; J. Hitchens, Burlington; J. J. Hartman, Dover; I. W. Speakman, West Grove; C. G. Lorenz, Bryn Mawr; A. Jackson, Wilmington; F. W. Hill, West Grove; W. H. Kinsey, Norristown; E. C. Masters, Woodbury; W. Burroughs, Trenton; C. W. Rich, Jenkintown; H. E. Love, Atlantic; J. W. Conner, Atlantic; A. Gaffey, Norristown; C. F. Idell, Oak Lane; W. L. Gaunt, Trenton; H. E. Hack, Trenton; J. E. Sticher, Trenton; E. S. Davison, Jenkintown; S. Shafer, Pottstown; and L. Garner, Norristown.

Atlantic District

A municipal private branch exchange equipment with 108 stations and 10 trunk lines has been applied for by the Atlantic City officials. It will connect the city hall with the residences of the city commissioners and other officials. There is probably no other similar installation of these proportions in our New Jersey territory.

HALL.



Lowering Leading Coil Pot into Manhole, Broad and Walnut Streets, Woodbury, N. J.



Splicing and Testing on a Windy Day
High Grade Aerial Cable between Gloucester and
Woodbury, N. J.

Bridgeton Sub-District

One subscriber, who had been notified by telephone about an unpaid account, wrote:

"I have been trying ever since the first of March to get a ten-dollar bill changed and only succeeded yesterday after the mail went."

It was a rural subscriber in a locality not closely inhabited or visited by itinerant salesmen.

Near Cedarville, N. J., a hurricane-like wind and rain storm picked up a garage and carried it through a high-tension electric light wire. Forty-four of our subscribers had their telephone service interrupted as a result because of the burning out of the lines. Other damage was done to the surrounding country by the storm.

The Pitman (N. J.) central office quarters now contain an additional room. Two new sections of No. 8 switchboard are being installed and a small amount of underground cable is being laid.

A new 100-drop general system switchboard has been installed at Cedarville, N. J.

LORE.

Dover Sub-District

Salesman J. B. Warner has just obtained a P.B.X. application for 17 stations from the L. D. Caulk Company of Milford. This is one of the largest manufacturers of dental supplies in the world. About 100 people are employed by that firm. The installation will be the first of its kind in the state south of Wilmington. What will be the next?

Doylestown Sub-District

The Deep Run Rural Telephone Company is our newest Plan "A" rural line near Pipersville, Pa. The company was organized April 1 to serve 10 subscribers from Doylestown. The community heretofore had no telephone service. When these stations are O.K.ed, Doylestown will serve 23 rural companies with 300 subscribers.

HENNESSY.

Norristown District

The Merchants' Hotel at Pottstown, Pa., is now served by a private branch exchange of 21 stations, with a double compartment booth for public use in the reading room.

BEERER.

Trenton District

The Burlington (N. J.) City Loan and Trust Company has applied for a monitor switchboard with 6 stations.

The G. T. Williams pharmacy at Burlington will be equipped with a two-compartment window booth. The *Daily Enterprise* commented on the installation in its news columns.

On February 1 the Trenton True American, a daily newspaper, had installed No. 1 private branch exchange service with two trunks and six stations. That was then considered two more stations than they actually needed, but they accepted our advice and since than have added four more stations, one at a time. The first installation often convinces the subscriber of the desirability of taking the "doctor's" advice.

The new air-compressor for testing and drying cable was tried in Trenton April 4, 1913. The test included 6800 feet of new high-grade cable, 6300 feet of 300-pair and 1680 feet of 600-pair cable. The 600- and 300-pair cables were installed three years ago and the splices have been inspected and pronounced good, but under the air test three of them proved porous.

A test was also made on 5300 feet of duplex aerial cable spliced up within the last month under adverse weather conditions, such as high winds, and it was found that three of the ten splices pronounced perfect previous to the test were found defective.

A Brooklyn automobile in passing through Princeton, April 7, killed a young woman. A state official, when notified, telephoned to twentynine towns in ten minutes to locate and stop the owner. The car was stopped in New Brunswick—about fifteen miles north of Princeton—ten minutes after the accident. The official said when he had finished calling, "This is real telephone service."

One of our Plant department employees was telephoned to after hours, March 22, to inform



Lowering Loading Coil Pot near Pole, North Woodbury, N. J., Camden District



caller where to obtain dynamite and how to it in raising the body of a drowned boy. He we the correct method and informed the question.

West Chester District

Rural construction has lately occupied the Plant partment's time extensively in this district. A w line of 82 poles now leads to the Doylestown change, and one of 148 poles will serve 24 poscribers from Guthriesville.

A three-year-old boy in Coatesville overheard is mother say she intended to get the doctor to send her child. The boy remembered that the mily accepted services from two doctors—one the bitter medicine and the other with sweet ls. as his experience had taught him. This ild managed to call the doctor he wanted and gan to talk. The physician tried to learn what as wanted, but the child hung up. The call as traced and the desired physician, much to the apprise of the mother, made a professional call dincidentally explained how he had been sumoned.

GREENFIELD.

Wilmington District

A subscriber of the new Holly Oak (Del.) schange happens to live in Pennsylvania—in the erritory now served from Chester. When the adius for Holly Oak was decided it necessitated toll charge for three of the near-by Pennsylvania subscribers to talk to Wilmington. The pastor of a church was one of these. His congregation is to overcome this as well as other disadvantages" of the parsonage location by building a new parsonage within our free service area. CHAMBERS.

New Blueprint Room

In Philadelphia, a new blueprint room has been provided for at Seventeenth and Filbert Streets. A section of the south side of the first loor has been walled with four-inch hollow tile, he windows which formerly ventilated the large sipe shafts have been closed, and the door has een replaced by a calamine door (wood core overed with sheet iron). Over 500 square feet of floor space will be devoted to the growing blue-rint work of our various departments. These nelude reports of certain kinds as well as maps and drawings. The machines to be used at he new location are of enlarged capacity, and it is expected that a greater output will be possible hortly after the removal.

An Unusual Case of Cable Trouble

By D. S. Hilborn, Cable Division, Philadelphia

RECENTLY, during a heavy windstorm, a large tree standing in the woods at the west of State Road, about two miles north of Torresdale, Philadelphia, fell across our aerial cable line which is on the west side of this road. In falling the tree struck the line about midway between two poles and bore the cable and strand down to the limbs of two trees standing each side of the point of contact. Where the tree rested on the strand it brought it within eight feet of the ground.

The strand was 9/32-inch hard-drawn, 10,000-pound steel. It was remarkable that it stood the stretching necessary to sag it so low without breaking, as neither end of the line was affected in the least.

Unfortunately no photographs were secured until after the county road men had cut the greater part of the top away to clear the road across which the tree had fallen. Some idea of the size of the tree may be obtained from the accompanying illustrations. One picture shows a good-sized man seated on one of the limbs. These views show only what remained of the tree after twenty-five or thirty feet of the top had been removed. It will be noted that most of these limbs are as large as a man's body.

The soft ground in which the tree stood was turned up, the roots and earth forming a mass fully ten feet in diameter. The weight of the tree forced one half this mass into the hole vacated by the other half, leaving a large hole under the base of the trunk of the tree. From the view showing half of the root mass above the ground. some idea of its size can be formed by comparing it with the man standing near by. Starting at the ground line, where it was four feet in diameter, the tree trunk tapered straight away for fortyfive feet to a diameter of three feet. From this point five limbs, each over one foot in diameter, extended for another forty-five feet, making the total height of the tree ninety feet. Our cable line is directly over the point at which the upper limb is shown partly cut through in the photo-graph. This is about sixty feet from the base of the tree.

The report which was received by us at 11:05 A.M. stated: "A large tree has fallen across aerial cable; strand sagged almost to the ground; tree too large to remove; cable in trouble."

From a practical standpoint this information was accurate. Acting on it, men were sent out equipped to run a new span of strand and cable over the tree and to remove the old span. Cablemen were also dispatched at once. A new span of strand was pulled over the tree between the two poles at each side. Then the cable under the tree was cut at a splice near the tree, and the two ends were pulled out and rerun on the new strand over the tree. The old strand was then removed. About thirty feet of new cable were required.

While this work was being done the cablemen were not idle. The stretching of the cable had pulled a splice apart several spans north of the fallen tree. It was necessary to make tone tests from the end of the aerial at Andalusia, the adjoining town northeast, and one from Torresdale; also to remake the 30-pair splice that was pulled apart, as well as to splice at the point of the trouble. The tone testing was done while the line gangs were replacing the cable.

The first report of the trouble was received at 11:05 A.M. The Germantown Cable Foreman was reached at Disstons' saw works, Tacony. He took a forty-foot ladder, two cablemen, splicing tools, etc., reached the scene of the trouble, made a survey, and called the office with a request for the necessary material by 12:45 P.M. While waiting for material and the line gang, all preparations for replacing strand and cable, testing, etc. were made. The replaced cable was turned over to the cablemen for splicing at 5:30 P.M. and an O.K. received at 7:50 P.M. The last portion of the work was done in the dark and rain.

More Trouble

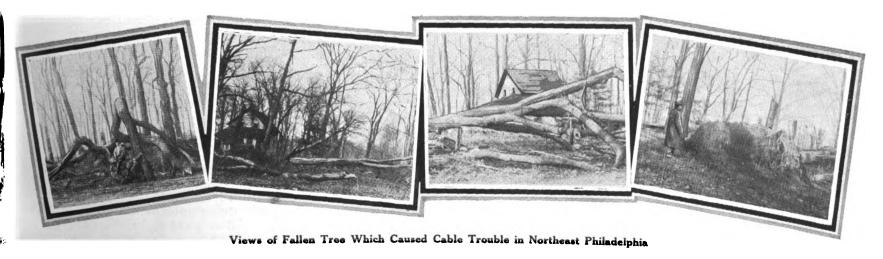
The Poplar Philadelphia Wire Chief was notified to this effect: "Kindly send someone to look at the telephone when someone is calling. The bell rings too weak, and when a wagon or car passes the bell never stops ringing."

The trouble was due to a loose gong!

Hot Solder

A number of accidents have occurred from hot solder splashing into the eyes of workmen. While a helper was assisting a cable splicer, some hot solder, while being poured into a joint, fell into a drip pan. It splashed into the eye of the helper, inflaming it and causing somewhat of pain.

A dry newspaper placed in the bottom of the drip pan will prevent accidents of this sort. Care should also be exercised to see that the pan is thoroughly dry before being used.





Butler District

A woman came into the business office at Butler, Pa., a few days ago, and paid her first telephone bill. She asked to be shown through the "telephone."

After having been shown through the operating room and office of the Company, she remarked to the Local Manager that the "telephone" was much larger than she had thought it was, and was under the impression that the switchboard was operated similarly to a typewriter.

The subscriber was an interesting guest and expressed a desire to have her sister see the central office equipment. She will bring her sister in when the next telephone bill is paid.

Dubois, Pa., April 12, 1913. Chief Operator, Dubois, Pa.

My dear Madam:-I wish to express my appreciation for the faithful, efficient and even successful efforts made by the "Long Distance" girls to locate my husband for me during the recent Ohio floods.

'Twas a great relief to have him located safely.

> Gratefully, Mrs. GOOD

Erie District

As a result of the recent disastrous flood which affected several of our cities and towns, relief headquarters were established at Erie to facilitate the forwarding of clothing, food and money to the sufferers. Our Company installed a telephone in these headquarters. After the relief station had been abandoned and the telephone disconnected, the following letter was received from Wm. J. Stern, Mayor of Erie, which expressed his appreciation of our Company's thoughtfulness:
"In behalf of our citizens I desire to

express the thanks of the community for your great kindness in installing your telephone in the storeroom at the corner of Fifth and State Streets for

use during the time of the collection of supplies for the flood sufferers, and I am,

Very truly yours,

W. J. Stern."

An Erie subscriber called the Chief Operator and asked if Smith's house at Sharon had been carried away by the flood.

The Information Operator at Erie receives an average of one call a day from people relative to different phases of the culinary art. Being an adept in this line of work, she is of considerable assistance to newly-weds. YOUNG.

Pittsburgh District

The following letter was received from a Pittsburgh subscriber enclosing a signed check on which the amount was left for the Cashier to fill in. His indebtedness was learned and the check was returned for personal filling in.

Pittsburgh, Pa., April 9, 1913.

C. D. Tel. Co.: Kindly ascertain amount due on telephone

, Cedar, and add to the enclosed statement. Fill out check for amount and oblige.

Send receipt, please. Couldn't find Cedar state-

Yours truly,

Pittsburgh has a progressive body of publicspirited citizens who are devoting their time to the welfare of newsboys. A recent attempt was made to solicit gifts totaling \$25,000 for the maintenance of the Newsboys' Home. When our service had been furnished to the committee in charge, a grateful letter was received by us call-



Our Division and District Correspondents, Pittsburgh Division

ing attention to the value of the service. telephone was of inestimable value to us. Considering the disagreeable weather we had during that week, it was a very great convenience," wrote the corresponding secretary.

Johnstown District

Not long ago a foreigner called up "Long Distance" from the public telephone located in the Vendome Hotel at Johnstown and all the operator could make out was "New York." Fortunately we have in the Johnstown central office an operator who speaks five languages. The man was speaking in Polish, and the operator, being rather modest and not wishing to speak in Polish before the other operators, said. "If I can go into the booth I will get that man's call." She promptly obtained the call and the called party at New York.

A call was made from the public telephone at the Johnstown Pennsylvania Railroad depot by

our Manager at Connellsville and arrange for telephone service. The Chief Operator placed a call for the agent at Connellsville, with the result that an appointment was made to meet the caller upon his arrival at Connellsville. There he was immediately "signed" for service. The man's haste was due to the fact that he was afraid his wife would sign up for opposition service before he could reach home.

The following notice was received at the Johnstown Local Manager's office:

"to the bell telefone company i am goin to brake up home keeping and i would lik fer you to com and take it out at once.'

Greensburg had two peculiar cases of trouble this month. In one instance a goose chewed one

wire of the drop-loop, thereby opening the twist; in another case a receiver cord on a wall set was opened by a parrot which had the freedom of the house.

On Friday, March 28, there were 59 telegrams sent from our Blairsville (Pa.) joint office. Of this number fifty-six were received over the Bell telephone and the others were in person or by messenger.

An Indiana (Pa.) subscriber, after being shown through our central office, made this remark, "I am pleased with every feature of your work, but am most impressed with your careful way of timing toll tickets."

Included in the list of persons shown through our Indiana (Pa.) central office during the month of March were the following:

The burgess, chief of police, councilman, piano dealer, florist, tailor. secretary of a connecting company. school teacher, minister, manager of an insurance company and the editor of a leading paper. SMITH.

New Castle District

One of our New Castle subscribers called the Cashier regarding his telephone bill and asked if we had any use for lead pipe. He said he should like to pay his telephone bill by turning over to us a quantity of two-inch lead pipe.

Pittsburgh, Pa., April 7, 1913. To the Bell Telephone operators of the Rochester exchange:

I take this manner of thanking you all for the splendid service rendered, especially by the toll operators, during the flood period, when you must have all been working under very trying conditions.

Very truly yours, The Beaver Valley Traction Company, W. H. Boyce, Superintendent.

HARPER.

Uniontown District

The operating room windows in the Uniontown central office look northward toward the factory section of the town. At 3.30 one morning recently the operator on duty noticed a glow of light and on going to the window discovered that a man from Connellsville. He asked to talk with there was a fire in this section. She immediately

called the fire department. Their efforts resulted in saving the surrounding buildings although the plant of a paper bottle and box company was destroyed. No notice of the fire had been received prior to the call from our night operator.

One of our Managers who has been trying to analyze the causes which led to the loss of stations met with this reason the other day. A man who had ordered his residence service disconnected gave as his reason that his mother-in-law lives about twenty-six miles away and formerly it required several days for a full exchange of family news to be consummated. Having residence service, his wife calls her mother every morning and they exchange not only family news, but read the interesting items from the newspapers of their respective towns. The toll service bills are greater than he thinks warranted and, as he has no other method of reducing them, he has ordered disconnection.

A new and novel way of making partial payment on telephone accounts was demonstrated at the Fairmont office. Enclosed in the envelope was a dollar bill in part payment of the account and a receipted milk ticket. The Cashier thought that this receipt was sent as security for the balance of the bill. It afterwards proved, however, that the enclosure of the ticket was an The subscriber called at the office and asked for the return of ticket, saying that it had been sent in error. MISS HEPPLEWHITE.

The Wheeling District news is confined to the flood destruction.]

Further Pittsburgh District Items

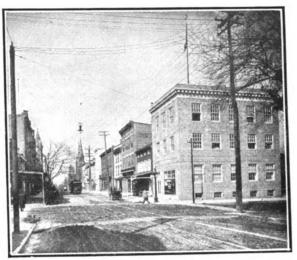
One of our Pittsburgh subscribers—an apiarist-paid his bill and notified us to disconnect because of the annoyance of neighbors' use of his service. Orders were issued and several days went by, when the wife of the subscriber telephoned to our office and advised that she had persuaded her husband to retain the service at least until after the bees swarm, for they would surely have much use for it then. She felt very certain that they would continue its use thereafter indefinitely, for she "has so many children to look after." [Good reasons for retaining service, are they not?]

A well-known architect in Pittsburgh, who would not have Bell telephone service in his residence, was recently quarantined by measles. He then requested that service be installed at once.

Traffic Department Baseball Team

A baseball team has been organized by employees of the Traffic department in and near Philadelphia. Grounds will be secured, practice will be held during the late afternoons, and games will be played Saturday afternoons with any other Bell teams in or near Philadelphia. The schedule has not as yet been determined upon, but a challenge is hereby issued to Commercial, Accounting, Plant or any other teams which the employees may organize.

The present manager of this Traffic team is H. P. Patchett, Traffic Engineer's office, first floor, Seventeenth and Filbert Streets, Philadelphia.



Lobanon, Pa., New Central Office Building

New Central Office at Lebanon, Pa.

HE handsome new central office building at Lebanon, Pa., recently completed, was occupied by the Company March 22. Located at Eighth and Chestnut Streets, diagonally across from the post office, it is three stories high, built of tapestry brick with lime and terra cotta, and is fireproof throughout. The doors and other framework in the inside are of solid oak and the outer doors, window sashes and other parts of the inside of the building are of metal. Thick tile walls with drawn metal doors enclose all stairways in the building. Of the fire-escape the Building Engineers are justly proud. Running past no windows, its several stages are entered upon only through fire doors. This eliminates the gridiron feature characteristic of the arrangement of many fire-escapes. The building interior is finished in white. The floors are of cement and are covered with linoleum. These features make it absolutely fireproof.

Careful attention has been given to the lighting and ventilation. The heat for the building is supplied by the local heating plant. In the basement is a large emergency gas engine and the battery room.

On the first floor, quarters are provided for the business office of the Local Manager and the Wire Chief, also public telephones for use of the patrons. The second floor is divided into two parts. In the front is the terminal room, back of which is the operators' rest room. Comfortable chairs, reading matter, and facilities for preparing



Operating Room, Lebanon, Pa.

food are provided. The third floor contains the operating room with a switchboard of fifteen positions, now equipped to serve 5000 subscribers.

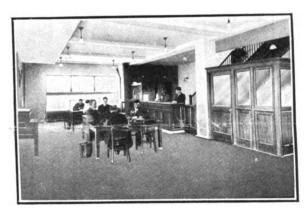
Prior to our occupancy of the new building the operating room and Wire Chief's quarters were in the Weimer Building on Cumberland Street, while the Commercial office was located on Eighth Street below Cumberland Street.

Some of Lebanon's History

Lebanon is a town of approximately 20,000 people, located in the beautiful Lebanon Valley, halfway between Reading and Harrisburg. was founded about 1750 by George Steitz. now has about twenty-six miles of streets. According to the 1910 census there were 109 manufacturing establishments with an invested capital of over \$12,000,000. Among its particular establishments are the large furnaces, steel and rolling mills, bolt and nut works of the American Iron & Steel Company, reputed to be the largest in the world, chain works which have achieved a nation-wide reputation, piano and organ plants, silk mills. shoe factories and shirt and handkerchief factories, the latter employing more than 1000 women.

Six building and loan associations are in operation having assets approaching \$1,000,000. In a single year they assisted in the erection of seventy-eight homes. There are four national banks and two trust companies.

Five miles south of Lebanon are the Cornwall Ore Banks, one of the most valuable iron ore deposits in the United States. These ore mines have been an important factor in the industrial development of this section during the century and a half that they have been working. The iron occurs in



Business Office, Lebanon, Pa.

the form of a magnetic ore, bedded in pure lime rock containing 1 to 2 per cent. of pyrite. There are also rich limestone deposits of which many train-loads are hauled out daily for the use of cement manufacturers in the Lehigh regions.

The city and rural developments have been well planned and the value of the growth in the rural community has been much appreciated by the people in Lebanon and vicinity. The following figures show the growth in the Lebanon exchange since December, 1899:

| 1909129 1911178 1913183 |
|-------------------------------|
| |

Suggestion Slips

In the Philadelphia Division, 154 suggestion slips were received resulting in 85 new stations and additional equipment, all totaling over \$2500

The summary since November 1 in this division is as follows:

| on is as | follows: | Resulting in | Stations | Revenue |
|--------------------------------------|--------------------------|------------------------|---|---|
| Nov. Dec. Jan. Feb. Mar. | 7 300 344 344 285 — 1340 | 37 118 158 168 154 635 | 30 110 153 151 85 ———————————————————————————————— | \$1010 2975 3694 4118 2517 ————— |
| | | | | |

Philadelphia Business Show Exhibit

From March 24 to 29 inclusive the First Annual Philadelphia Business and Office Appliance Show was held in the First Regiment Armory, Broad and Callowhill Streets. It was the first exhibition of this kind ever given in Philadelphia, but it was successful to a degree which insures it being repeated each year hereafter. Forty-one different kinds of labor- and time-saving office devices were exhibited and were viewed by nearly 25,000 people during the week of the show. Dictographs, multigraphs, lettergraphs, elapsographs, feedographs, addressographs, printographs, diagraphs, sealagraphs and comptographs were exhibited and demonstrated.

Among all these efficiency helps, the Bell telephone occupied a conspicuous place. The first booth at the left as one entered the hall was

decorated with the blue and white of the Telephone Company, whether artistically or not you may judge for yourself from the reproduction.

A standard one-position switchboard was installed with an equipment of ten trunk lines. This served eighteen stations in the various exhibitors' booths and three public telephones.

The switchboard used had been provided with a special plate glass back with an electric light inside so that those who visited or even passed by the booth might inspect the intricate wiring and see the working of the various relay drops.

Other Bell telephone equipment was exhibited and the booth was attractively decorated with Blue Bell lamp-shades. Over 15,000 pieces of advertising matter were distributed by the Telephone Company, including 4800 four-color postcards and 7000 Blue Bell bangle pins. The booth was in charge of R. C. Mason of the Publicity Department.

assistance by instructing the students concerning the workings of his department. The professor before he left expressed a desire to have the remaining members of the junior and senior classes shown through the office.

Several students at Juniata College, at Huntingdon, are from different parts of Ohio, and all have been attempting in every way to get information from home during the recent flood disaster. One student on hearing of the disaster left for his home, near Dayton, but got no further than Pittsburgh. He had the presence of mind to telephone here and advise others who contemplated the trip that it was impossible to make it

A Lewistown subscriber, who had his telephone disconnected a few months ago, has again signed an application for service stating that he never realized the value of Bell service until he was without it. He said, "We will cut down expenses in a good many ways before we allow our telephone to go again."

A Ridgway business man, who is manager of a large lumber company, said that recently it was necessary for him to send a telegram to Spokane, Wash., when the local office was closed. He was connected with an open Western Union office, and when the local office opened shortly afterward a reply to his telegram was the first one received. He said it is a great convenience to have a telephone which is an always-open telegraph office.

A foreigner, who was expecting his fiancée to arrive from Europe, sent several telegrams from our Ridgway office to the steamship company, and practically camped in the business office for three days awaiting a reply. He finally decided to go to New York and get his bride-to-be. A few days later he returned to Ridgway and came direct to the business office to introduce his wife and thank us for our efforts.

Harrisburg District

Suggestion slips brought \$805 worth of net revenue during March, varying from \$1.80 to \$132. There were from one to six slips each to be credited to 26 employees. They are in the Traffic, Accounting and Plant departments as well as in various parts of Commercial work not closely associated with selling.

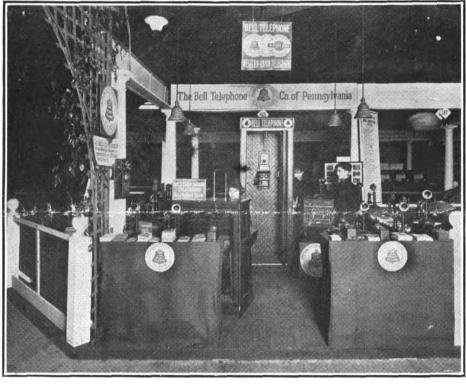
Reading District

A newly appointed clergyman at Mt. Carmel signed for telephone service, and to insure the receipt of incoming calls, announced at services that he had Bell telephone service. He requested his parishioners to call him freely at any time.

A Shamokin physician was so impressed by his first visit to our central office that he asked permission for another visit. He has learned things that were of decided interest to him during these visits.

Our Bell-Grow Club is keeping up its fine work with generous numbers of suggestion slips. Over \$2000 worth of annual revenue was reported in this way during March. Boyertown, Sinking Spring, Mt. Carmel, Shamokin, Pottsville and Lebanon, all have furnished prospects. An A. T. & T. Co. representative also assisted. Pottsville's 194 slips seem to be far in the lead in numbers, but Reading's new revenue obtained totals a greater amount.

Bell
Telephone
Booth
at
Philadelphia
Business
Show





Allentown District

A stenographer in the Allentown Commercial office, while purchasing groceries, overheard a man inquire from the proprietor of the store whether or not he knew the residence rates of Bell telephone service. The stenographer at once inquired the man's name and address, quoted him rates and offered to have a salesman call at his house. The salesman called and obtained the order.

A Plan "A" rural line application has been obtained from the Hanover Bell Rural Line Company. Twenty new stations will thus be served from Catasauqua.

Nineteen multiparty line applications have been obtained in Berlinsville and Danielsville for service from Slatington. The construction of this line has been begun and will be completed about May 15.

WOLF.

Altoona District

Suggestion slips brought 27 applications for service, totaling over \$500 in new revenue.

The Hollidaysburg central office common battery installation will probably be completed by May 15.

The automatic central offices at Burnside and Westover, which are the only two remaining offices of this kind in the Harrisburg Division, will very soon be replaced by service from the Mahaffey central office on multiparty lines. In 1908 there were eight or ten of these automatic equipments in the Harrisburg Division.

The Altoona Local Manager recently "signed" the Colonial, a leading hotel at Altoona, for private branch exchange service with 55 stations.

The Professor of Physics in the Clearfield High School arranged with the Local Manager to have his senior class in physics shown through the Clearfield central office. The students have just reached telephones and electricity in their class work, and many interesting questions were asked by the visitors The Chief Operator explained the traffic operation in a very clear and detailed manner, after which a Plant man gave

Digitized by GOOGT

The attached is a copy of a letter received at Reading in reply to a letter soliciting new sub-

A local grocer experienced somewhat of trouble in making the called person hear over the other company's telephone.

On being questioned as to why he did not use Bell service, the grocer replied that he did not want to tie up his Bell lines for this kind of conversation, as it was over the Bell lines that he secured the major portion of his business!

HYKES.

Scranton District

A local subscriber handed the Cashier about thirty-five return envelopes which had been enclosed with her telephone bills. She paid in person each time and thought, of course, that the envelopes would be of use to us if returned.

"Every member of the Playground Association is very grateful to you for having made possible the prompt installation of a telephone at head-quarters during our recent campaign," wrote a member to our Scranton District Manager. "We appreciate your efforts in our behalf and wish you to know that the telephone was a boon."

A Scranton subscriber when paying her bill at the Commercial office said she thought her telephone needed oiling because it had a squeaky sound! The mouthpiece was tightened and the trouble removed.

One of the ushers at a local theatre was called to the telephone during the Saturday afternoon rush and in taking down the receiver said, "Checks, please!"

Another odd conception of telephone service and equipment was displayed when one of our subscribers called and said it would be necessary for him to dispense with his telephone service, inasmuch as it was too great an expense. He said he would retain the extension station at fifty cents per month, but would have the main station taken out.

Wilkes-Barre District

A Wilkes-Barre subscriber, who had been reminded of the date for payment for service, wrote:

"Enclosed find my check for — in payment of bill rendered March 1. Please accept my thanks for the courteous manner in which you called to my notice the fact that I had overlooked it.

SHAFER.

Williamsport District

A local reporter called our Chief Operator in one town and said: "After waiting a reasonable length of time at the opposition telephone, I received no response, so I made a bet with one of the workmen that I could get my Bell operator and complete my calls by the time the opposition operator had answered him. I had placed fifteen or twenty calls and was talking on the last one, when the opposition operator called and asked my associate, 'What number do you want?'

"Now I want you to congratulate that particular Bell operator for her kind attention and good service."

An Operating Plan

Traffic employees in the Chestnut Hill central office, Philadelphia, have devised several plans towards stimulating interest in operating work. Two of these well worth noting are as follows:

All operators submit to the Chief Operator a written statement as to just how each thinks her particular work should be carried out to bring about the best results. The best of these com-

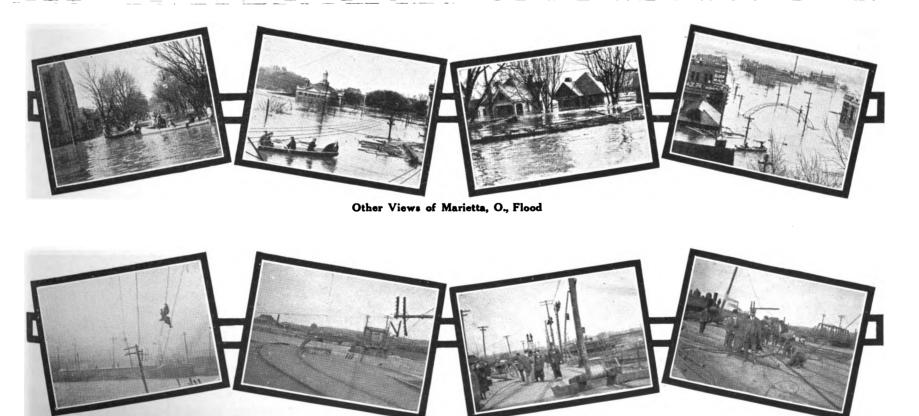
Conference of Publicity Men

On April 15 and 16 there was held in Philadelphia a conference of men engaged in Bell telephone publicity work. It included Messrs. J. E. Boisseau of the Chesapeake and Potomac, Evelyn Harris and J. H. Atchison of the Southen Bell, R. S. Scarburgh of the New York, and P. C. Staples of the Bell of Pennsylvania companies. On April 16 the subject of company magazines was discussed in Philadelphia and these men also were present: Messrs. J. D. Newman of The Telephone Review and P. L. Thomson of the Western Electric News, both of New York, T. T. Cook of The Transmitter, Baltimore, and E. H. Havens of The Telephone News, Philadelphia.

Among the company newspaper or magazine subjects discussed were the subject matter of editorials, treatment of society papers, arousing interest among contributors, most desirable method of reporting miscellaneous happenings, reports, illustrations, size, uniformity among the various magazines, personal notes, connecting company news, question and answer columns, correspondence course columns, paid advertising, treatment of technical articles, desirability of colored covers, humor, prompt issue, editing of prepared articles, the relative desirability of holding to newspaper or magazine methods, the limitation of pages in a single issue, and advantages of semi-monthly as compared with monthly issue.

The magazine subjects were further discussed on April 17 in New York in order to cover more fully the large number of subjects in which the previous talks had aroused interest.

ments are edited by the Chief Operator and posted on the bulletin board. These comments so far have not only been inspiring to the operating force, but have also been very gratifying to those in charge of the office on account of the splendid attitude expressed by the operators towards their work.



New Castle, Pa., Line Crews on Replacement Work

Our Societies

The Philadelphia Telephone Society

Metropolitan Opera House, Broad and Poplar Streets, Philadelphia, Tuesday evening, May 20, 8 P.M.

Final meeting of the season, with addresses by various officials of the Company.

Members are urged to notify Mr. P. C. Kramer, Chairman of the Special Committee, on or before May 5, whether or not they will attend. (Special cards will be provided for this purpose.)

Telephone Company Dinner

The Progressive Telephone Company in Northern Wayne County—a connecting company in our Scranton District—gave an enthusiastic dinner at Hotel Healey, Lake Como, Pa., April 2. It celebrated the completion of the first trunk line to connect subscribers in near-by exchanges with the Pleasant Mount central office.

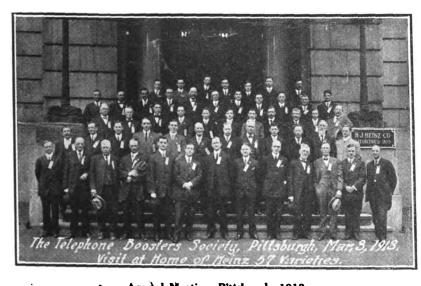
The company is newly organized and the directors and stockholders felt that this summer resort section needed telephone service to add to its attractions. The menu was attractive, and there was also displayed a cartoon of several of the prominent men drawn by Mr. William

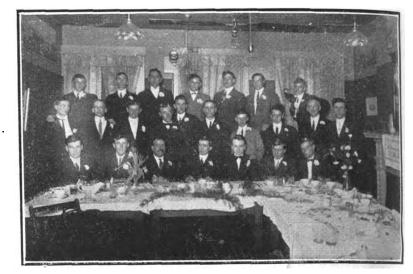
Steincke, of the Scranton Tribune-Republican. The cartoon appeared in that newspaper. The menu listed the names of the fourteen charter members of that company.

New Stationery Committee

The appointment of a new Stationery Committee has been announced as follows:

C. O'D. Lee, Executive and Engineering Departments; W. P. Norris, Commercial Department; J. S. Beckman, Traffic Department; H. Boulter, Plant Department; J. E. Halfpenny, Accounting Department; E. Ebenbach, office of Superintendent of Supplies, chairman.





Knock for Knowledge Klub, Farewell Dinner, Washington, Pa.

Annual Meeting, Pittsburgh, 1913

Pittsburgh Telephone Boosters

This society held its fourth annual meeting at the Western Electric building, 910 River Avenue, Pittsburgh, on April 3 and 4. The Telephone Boosters is an organization of the telephone customers of the Western Electric's Pittsburgh branch house. Practically all are Bell connecting or Plan "A" companies.

The recent meeting was held under the joint auspices of the Western Electric Company, The Central District Telephone Company and the Pittsburgh Reinforcing Pole Company. Invitations were sent to the Western Electric Company's telephone customers and to the Bell connecting and Plan "A" companies. It is significant of the interest taken in the telephone business that some delegates came from Erie County, a distance of more than 150 miles, to attend this meeting. A total of sixty-five delegates, representing fifty different telephone companies, were present. Forty-two acceptances had been received from Ohio, but the recent flood, occurring shortly before the meeting, prevented all of these fortytwo from being present. This was a distinct loss, as the Ohio members are among the most enthusiastic boosters that there are.

The addresses, two luncheons, dinner and theatre party were all thoroughly enjoyed. All who had not seen a large central office were conducted through the Grant office, the toll room and the Operators' School.

The Western Electric Company sold a number of orders of equipment and material, with the promise of many more to follow.

The Central District Telephone Company received assurances of considerable improvements in many connecting and Plan "A" plants, and made arrangements for revising several existing contracts. Altogether it was the most successful of these meetings thus far held.

Trenton Plant Club

The announcement for the last meeting was prepared in a "scare-head" form similar to the drug-store posters that have been used for a long time by certain patent medicine companies. At a distance they looked like flood news, but a near-by reading disclosed an ordinary announcement of a regular monthly meeting.

Atlantic Telephone Society

At the April 15 meeting, held in the Supply Room, 14 S. New York Avenue, Atlantic City, 46 men heard the Rev. N. W. Cadwell speak on the "Influence of Young Men on the World, or Success Spelled with Six Letters."

G. F. Bristow, G. C. Harris, and B. C. Sieber were appointed at this meeting to make arrangements for the eighth annual banquet to be held in May.

The New Castle Telephone Society

At the meeting held April 11 the subject was "The Flood." Speakers, E. S. Kelly, W. J. Du-Quinn, H. Hood and I. J. Stitt. At the April 25 meeting the speaker was A. T. Jenkins. Subject, "Greater Efficiency."

At the March 21 meeting, H. A. Brown, District Manager, spoke on "Commercial Methods," and at the April 11 meeting A. T. Jackson spoke on "Greater Efficiency."

A baseball team has been organized among the members and arrangements are in progress for securing a franchise in the New Castle (Pa.) Twilight League. The society expects to put a good team on the diamond and is open for any games with other telephone teams in The Central District Telephone Division. Address all communications to the Manager, Bell Telephone Baseball Team, New Castle, Pa.

Knock for Knowledge Klub

On Tuesday, March 25, this club composed of Plant employees at Washington, Pa., gave a farewell dinner at Lloyd's Café to their Wire Chiei, H. W. Ebel. Mr. Ebel has been associated with the Bell System for about twenty years, seventeen years of which have been spent in Washington. Mr. Ebel leaves for McDonald, Pa., where he has accepted a position as Superintendent of the West Penn Electric Company's plant. H. S. Price, formerly Fieldman of the Charleroi District, has taken charge of the Washington plant.

The 613 Club

At the April 8 meeting of this Plant department club, J. S. Miller read a paper on "Ringer Coils and Generators." The club now has thirteen members of Allentown, Pa., men.

Organization Changes

J. H. Carroll has been appointed Accounting Supervisor of the Plant Accounting Office.

S. L. Young has been appointed Division Chief Clerk of the Eastern Division, vice J. H. Carroll transferred.

E. Ebenbach has been assigned to work in the office of the General Superintendent of Plant, reporting to the Superintendent of Supplies, vice S. L. Young, transferred.

E. Kilhafner has been appointed Division Chief Clerk of the Harrisburg Division, vice E. Ebenbach, transferred.

The foregoing changes became effective April 23.

E. J. Carr, Traffic Inspector, has been placed in charge of the Chester, Pa., District, reporting to the Traffic Supervisor, Wilmington.

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John Cooper Lynch

PARTICULARLY fortunate are we in the appointment of Mr. John. Cooper Lynch to the office of General Superintendent of Traffic of The Bell Telephone Company of Pennsylvania and Associated Companies, succeeding Mr. W. R. Driver, Jr.

With well-rounded experience in all branches of Traffic work, embracing the management of suburban and metropolitan central offices, traffic engineering and organization, Mr. Lynch comes to us from the New Jersey Division Superintendency of Traffic of the New York Telephone Company.

Born at Stockbridge, a Western Massachusetts town in the Berkshire Hills, January 15, 1875, Mr. Lynch attended Williams Academy and subsequently Cornell University, at Ithaca, from which he received the degree of Mechanical Engineer in 1896.

In the same year of his graduation Mr. Lynch entered the employ of the New York Telephone Company under Mr. E. F. Sherwood as Traffic Inspector in Manhattan, and after approximately a year of this work was made Assistant Traffic Manager of the Franklin central office. Transfers to other New York City offices followed, and in 1899 he was advanced to the managership at Riverside and, later, at John Street,—each advancement carrying with it responsibilities of an increased nature.

The managership of the Westchester Division was his next appointment, until, in 1901, Mr. Lynch became Traffic Engineer of the New York Tele-

(Continued on page 2)

William Raymond Driver, Jr.

ITH a record of fourteen years of conspicuous service at the head of our Traffic Department, Mr. Driver is removing to Boston to assume the office of General Manager of the New England Telephone & Telegraph Company, with headquarters in that city.

As detailed in The Telephone News of June 15, 1911, Mr. Driver jumped from Harvard University straight into the thick of the telephone struggle at Boston back in 1893,—being the third "telephone student" employed in the laboratory of Dr. H. V. Hayes, where were solved so many of the momentous problems which perplexed the American Telephone & Telegraph Company engineers during that formative period.

One of the pioneers of common-battery switchboard work, Mr. Driver has witnessed and played a generous part in the development of the telephone operating art from its humble beginning to that high standard which now universally prevails where Bell service is to be found.

Throughout his twenty years of continuous telephone activity, Mr. Driver has blazed a broad and enviable trail through the maze of operating difficulties which the very progress of our business has imposed. And with more than half of our Companies' employees under his supervision since 1897, when he became our first Superintendent of Traffic, Mr. Driver has demonstrated in a most convincing manner his uncommon capacity for increased responsibilities and the performance of each new and exacting labor.

(Continued on page 2)





May 15

John Cooper Lynch

(Continued from page 1)

phone Company. In this capacity he acted for about six years, and in 1907 was made Division Superintendent of Traffic of the New York and New Jersey Telephone Company (lately consolidated with the New York Telephone Co.) with headquarters at Newark, N. J.

For a considerable period these duties were augmented by those of the superintendency of the Hudson, N. Y., Division.

At the time of the reorganization of the socalled "Up-State" Bell companies in New York (about 1909) it was Mr. Lynch who was largely responsible for the welding of the Traffic forces of the then Bell Telephone Company of Buffalo, the Central New York Telephone and Telegraph Company, and the Hudson River Telephone Company into their present highly efficient organization.

Mr. Lynch's recent administration of Traffic matters in New Jersey may be best judged by the fact that throughout 1912, while approximately 140,000,000 originating calls were handled, only 274 letters of complaint chargeable to operating were received, or about one for each 500,000 calls. These figures are still more remarkable when it is noted that the telephones from which they originated vary from rural stations to those of busy manufacturing cities like Jersey City and Newark,—and from stations in homes where the regular traffic throughout the year is light, to those in the summer hotels along the coast and among the Jersey lakes.

We are especially favored in the establishment of an official connection with a man so familiar with and proficient in all branches of Traffic work, and with one whose record of accomplishment is so marked as is Mr. Lynch's.

Managing Class 10-A Offices

Class 10-A Telephone-Telegraph offices have been created in a number of places in our territory. The term, by the way, is one of a series used to designate certain types of joint and single offices throughout the country.

It should be a source of pride for any of our representatives to know that he is the business-getter for the largest two handlers of means of communication in the world.

It is taken for granted that each of these men is the best qualified man available for the work. To remain so and to increase telegraph business proportionately to the telephone gains he must study its needs, and not be satisfied until he has familiarized himself with its methods, reasons and needs as he is of telephone matters. That is a larger task than may at first be apparent.

As a telephone man the representative has only functional duties—entirely Commercial; but as a telegraph man he must act as a Commercial and also a Traffic man. As the business grows he will note this dual duty more clearly. The generalities that apply commercially to the telephone, for the most part, apply also to the telegraph.

The operating work in the telegraph business will require thorough study of a most important phase of the business. The record made in message transmission work, the average delay to relay messages (if a relay office) and to city-sent messages are each of great value in determining what will bring his office to the highest standards. He should know also how many messages each of his

operators and messengers receives so that there will be a maximum of efficiency in handling all of them. This will enable him intelligently to recommend the increase or reduction of his force or equipment, as the amount of business may warrant.

The routing of messages, methods of handling details to increase speed and emergency preparations are so necessary that any good representative will recognize their relative values.

The subject of delivery is a whole study of itself. Naturally from the recipient's view-point it is of major importance; and since he is as likely as anyone involved to make complaints, the delivery should receive the supervisor's careful attention. The assistants and messengers should have access to a city map as good as is available. It should be framed or otherwise protected and be placed at a height convenient to both tall and short employees engaged in this work. Regular inspections of the time required to handle individual messages, both outgoing and incoming, should be made at intervals. The realization on the part of the employees that the manager is personally interested in each of them and in their relative efficiency will do much to incite them to their best efforts.

Many a return message has been received as a direct result of a courteous inquiry by the messenger after he has patiently waited during the recipient's reading of his message. Tact here, practiced by the messengers, will not only raise them on the advancement ladder, but will prove a schooling that will be of the greatest value in their after-lives. It is the manager's duty to school the messengers—by practicing in his own office, if necessary—so that his telegraph representatives may be sources of pride in the conduct of every detail of his work.

The attitude of the man in charge is sure to be reflected in every employee's work. Here are boys starting their business careers. The telegraph-using public judges only by what it receives in the quality of service. The messengers have no experience to guide them and must, therefore, depend upon their supervisors for it. How many managers have ever shown a personal interest in all of the employees, including the messengers? Why should not the boss's personal interest be the first incentive to the messengers to advance and become more important factors in rendering the highest grade of service? Who is going to show them the ideal method of doing each duty and of taking pride in it if the manager fails to do it?

Complaints may be a part of the routine, but their number may surely be kept at a minimum by application and by studying the causes and means of checking them. This will, of course, require time and hard work, because new problems must be met and solutions arrived at to fit each district. The public never intends complaints to be personal, but we should consider them so until we have removed all chances of their recurrence.

As a whole there is much to be gained by tackling each problem in the telegraph business in a thorough way with the determination to evidence progress over any methods which formerly have given rise to criticism.

Watch Recovered Through Directory Listing

Charles Marshall, Jr., who now lives in Germantown, Philadelphia, spent the summer of 1904 at Cape May, N. J., and while there lost his watch.

William Raymond Driver, Jr.

(Continued from page 1)

Particularly during the years in which the growth of the Bell System in our territory has been greatest, Mr. Driver has guided his splendid organization with that force and wisdom which is acquired not only by experience but by studious and persevering effort; and never during this period has the Traffic Department faltered, nor has it failed to meet the most trying operation situations which even the wonderful development of our business has produced.

The example of marked efficiency, resourcefulness, and unfaltering loyalty which his employees have manifested during these fourteen years can only be regarded as compelling evidence of the example set by their superior. The continued instances of unflinching heroism and devotion to duty, which The Telephone News has had so frequent occasion to attribute to our splendid operating force, are significant of the spirit and effort which Mr. Driver has instilled into even the most humble workers in his organization.

It is perhaps proper that this long and uninterrupted record of our Traffic Department should speak for the accomplishment of its General Superintendent, rather than any commentary which these columns might attempt. Surely the New England Company has established, through its affiliation with our Mr. Driver, a connection which prophesies only the greatest expectancy for the future.

All of our employees through their paper heartily congratulate the New England Company and Mr. Driver, both. If there is a fly in the ointment it is that "Boss Bill"—as it is the pleasure of many of us to know him—is compelled to establish a long-distance connection with us which denies the continued privilege of a familiar smile of understanding and a not infrequent and encouraging slap on the back.

Again, Mr. Driver, our employees offer you an unanimous and generous word of congratulation, and wish for you the same bountiful measure of success and appreciation which has been yours in our Pennsylvania group!

The name Charles Marshall and words "21st birthday" were engraved on the case. The finder scanned the lost and found columns of local newspapers without success. The owner did not advertise the loss because he had little faith in the possible recovery.

Harry D. Funk, a Kimberton, Pa. (Norristown District) farmer, had Bell telephone service installed in his residence just lately and during a winter evening amused himself by reading the directory listings. Suddenly he discovered several listings of Charles Marshalls and recalled having found a watch several years before at Cape May. He looked at the engraving again and wrote to all men of that name listed asking if they had lost anything at the summer resort several years before. There are five of that name in the Philadelphia section and two in the "Outside of Philadelphia" part. The reply from the Germantown subscriber led to a telephone conversation and an invitation to the farmer's home. The return of the long-lost property followed.





Atlantic District

As against \$390 worth of new business obtained in March from suggestion slips, this district obtained 25 new stations and equipment netting \$663 worth of increased revenue during April. What will May develop with the summer residents coming on every train?

Our Ocean City representative, F. L. Howe, after three years of effort, obtained an application for service from one prospect. As frequently happens with those who "hold out" so long, the subscriber said that he would never again be without the service. HALL.

Dover Sub-District

The following would indicate that a vocal test, in an attempt to discover trouble on a line, is not always satisfactory or accurate:

A rural subscriber complained recently that she had much difficulty in hearing those who called her. The report was given by the Chief Operator to the Wire Chief, who began the usual investigation. Calling the number in question, he was fortunate in getting the woman who made the complaint and the following conversation took place:

"Is this Mrs. Blank?"
Subscriber: "Yes."
"This is the Wire Chief of the Tele-

phone Company; I understand you have trouble in hearing parties who call you up."

Subscriber: "Yes."

"Do you have this trouble all the

subscriber: "Yes,—I had the same trouble only a few moments ago."

"Well, how do you hear me?"
Subscriber: "I hear you plainly."

"Well, I guess there can be nothing wrong with the instrument just now.

Subscriber: "Look here, young man, I hear you all right; but remember, everybody hasn't got a voice like

It is said the Wire Chief promptly found and remedied the trouble.

PRINCE.

Doylestown Sub-District

An estimate has been approved and six thousand feet of cable ordered from the Western Electric Company to replace open wire construction on

the Dublin Pike, north of Doylestown. The development in that section has been very rapid during the last few years, making the present construction inadequate to handle the business.

On the evening of April 21, fire was discovered in a haystack on the premises of one of our rural line subscribers served from the Doylestown exchange. By means of the telephone, neighbors were communicated with and a bucket brigade was formed. They succeeded in saving the barn, which was located close to the haystack. The subscriber was so pleased with the efficient service that the telephone had performed that he took the occasion, the following day,

to call on the salesman who had organized the rural company and to compliment him on the aid rendered by the telephone.

Norristown District

A Pottstown subscriber who recently called the Norristown office asked to have his service discontinued as he was leaving for California. He stated that he wished to thank the operators for the prompt and courteous treatment received during his time as a subscriber. He said: "This is my last message to you over the telephone now, as I am leaving for California."

One of our Norristown subscribers called the office and stated that she wished to have a fifteen-foot cord installed on her telephone. She was advised of the usual charge for this extra

Our Division and District Correspondents, Atlantic Coast Division

length. Unwilling to pay anything, and evidently with the thought that it would have to be made to order, she suggested that we fasten two tenfoot cords together and thus supply her wants. BEERER.

Trenton District

The submarine cable across the Delaware River between Burlington, N. J., and Bristol, Pa.. was broken by a dredge machine, April 22, at 10 A.M. The Burlington end of the cable was located at 6 P.M. the same day. The Bristol end was not found until 1 o'clock the next day, although the search was continued all night. The cable was in place and in working order two

hours after the Pennsylvania ends had been found.

The trunk lines between Burlington and Bristol, Mt. Holly and Bristol, Mt. Holly and Trenton, Burlington and Trenton, Burlington and Philadelphia, and some private wires were out of service during the time that the cable was broken.

Only one complaint on account of delayed service was received because of this break, due to the good work of our Traffic employees in routing the calls in a roundabout way over other GARWOOD. trunks.

West Chester District

New quarters have been secured for our central office at Glen Moore, Pa., and continuous service will be given after the removal has been

> Lines are now being extended from our Honey Brook (Pa.) central office to Supplee and Dampman, points that have in the past been operated entirely by opposition telephone companies. On June 1, 1912, we had twelve subscribers at Honey Brook. Our last Traffic report shows that we have sixty-one. In addition, fourteen orders are soon to be completed.

The Chief Engineer of the West Chester fire department had inserted in a local paper suggestions headed: "What to do in case of fire, and how to do it." The following pertaining to the telephone:

"No. 1. Look up the telephone number of the First West Chester, Good Will No. 2, Fame No. 3 (fire departments).

No. 2. Have the telephone number on card near the telephone.

No. 3. Speak distinctly when calling the department by telephone.

No. 4. Be sure to give location of fire; don't say 'Come to my house.'

Morgantown, Pa., in the southern extremity of Berks County, has al-ways been operated exclusively by the Conestoga Telephone Company. This section is almost entirely inhabited by the Amish, who also own the greater part of the stock in the local Company. We have made a move to furnish Morgantown with Bell service by transferring our present Marsh central office to Elverson and giving continuous service. Lines will be run to the following points: Joanna, Joanna Heights. Harmony Church, Stone Church and Hopewell. Fifteen new subscribers have been obtained in the vicinity of Morgantown.

GREENFIELD.

Bridgeton Sub-District

Sixteen miles of circuit have been strung and four miles of poles set to serve forty multiparty subscribers in the vicinity of Newport, N. J., from the Cedarville (N. J.) exchange.

Eight miles of circuit have been strung and one mile of pole line erected on the Sheppards Mill Road, to provide for ten additional multiparty applicants to be connected with the Bridgeton (N. J.) exchange.

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Camden District

The business of the New York Shipbuilding Company has increased to such proportions that it was found necessary to have a two-position board replace the present equipment. The capacity of the new board will be 300 stations. There are now three trunks to the Camden central office and three to the Lombard (Philadelphia) central office.

The private branch exchange has been reinstalled in the Camden County Court House, with 2 trunks and 19 stations. WRIGGINS.



Atlantic District Truck and Trailer (See column 3)

Wilmington District

Notwithstanding the recent date of the opening of the Holly Oak (Del.) exchange, additional feeder cable has just been pulled in to take care of the rapidly growing business.

The Plant department has received a one-ton truck and will soon have another—a one and one-half ton truck.

Salesman Alexander recently sold considerable additional equipment to the Wilmington Fibre Specialty Company, including a private line from their Wilmington office to their mill in Yorklyn, Del.

Useful Truck

Reproduced on this page is a one and one-half ton truck with its one ton trailer which has been in constant use in the Atlantic District (New Jersey)—between the seashore towns and Hammonton—since July, 1912. Employed in polesetting, the transportation of men and material and in other miscellaneous work, it replaced another truck which had been in use there for several years. When the truck is not loaded the trailer may carry over a ton.

For the first three months of 1913 its report of work is very satisfactory. While there are other trucks with as good records, this one is interesting. Altogether it has traveled 3300 linear miles, or 2339 ton miles. (One ton carried one mile is known as a ton mile traveled). The cost has been 27 cents a linear mile and 28 cents a ton mile. The savings in team hire total \$526, and the net savings, including labor and other items, total \$855 for three months over the former method of using teams. These figures are computed from daily reports turned in by the regular driver of the truck. His services are, of course, included in arriving at these figures.

Food

By Dr. Alvah H. Doty, Medical Adviser of the Employees' Benefit Fund Committee

fuel which supplies the engine with motive power, but in addition to this it must also replace worn-out tissue and provide for increased growth.

Scientists have been able to determine the composition of the human body and the character of food best fitted for its nourishment, and were it possible to give directly to the various tissues the material most needed for their support, the problem of nutrition would be easily solved. But that which we eat is subjected to the process of digestion and food reaches its destination in a modified and roundabout way; however, the knowledge we now possess enables us to go a long way toward securing the desired results.

Bone Substances

It is known that bone is composed of animal and earthy matter or so-called "bone earth." The animal matter consists chiefly of gelatin, and every household is familiar with the fact that very appetizing and nourishing soups may be made by boiling bones; this simply liberates the gelatin. The latter remains unchanged for a long period, for soup has been made from bones over a thousand years old.

The earthy matter is composed of phosphate of lime, and supplies bone with the necessary hardness. The bones of very young children are less compact and probably contain a relatively larger amount of animal matter than the bones of grown persons; this provides greater elasticity; and were it not for this, the many falls and injuries incident to childhood would lead to more frequent fractures and deformities. Sometimes the amount of bone earth in early life is far too small, for in a form of malnutrition affecting children, known as "rickets," the bones, particularly of the legs, become bent and distorted, and lime must be supplied in order that they may regain their normal composition.

The muscular system which supplies the motive power and strength to the body, unlike bone, must be capable of the freest movement, therefore a different kind of food is required to maintain its nutrition; then again the secretions must have plenty of water and certain salts properly to perform their function.

Food Classifications

At the risk of entering into more technical grounds, a little time should be given to the consideration of the various groups of food and the terms which are used to designate them.

Food is classed as organic and inorganic. Organic substances are divided into those which contain nitrogen (with which we have dealt in connection with the subject of Air) and those which do not. The organic nitrogenized substances are known as "proteids," and are by far the most important articles of food, for nitrogen is required in the formation of new and the repair of old tissue and in the proper nourishment of the body, and without it we could live but a short time.

The proteids are well known to us in the forms of meat, the albumen or white of eggs, the casein of milk, the gelatin of flour, and so on, and are specially needed to supply strength and motion.

The organic non-nitrogenized substances, as the name implies, contain no nitrogen, and are recog nized in the forms of fats and sugars, the latter being known as "carbohydrates"; starches are included in this class and during the process of digestion are transformed into sugar. Sugars and fats are heat-producers besides being important agents of nutrition. If they are reduced in amount below a certain point, a condition of malnutrition follows and renders the person more susceptible to disease. Fat is found immediately under the skin as well as in the deeper structure, and being a poor conductor aids in retaining the warmth of the body and protects against cold from without. Besides, fat is required over parts exposed to pressure, and also aids in maintaining the symmetry of the body.

Organic substances in supplying the various tissues with nourishment lose their identity and leave the body in a changed condition or as

waste matter; this is eliminated largely through the intestinal tract and the kidneys.

Inorganic substances consist of water and various salts, which are necessary properly to maintain the functions of the body; they are specially needed in connection with the various secretions, such as the gastric and intestinal juices, but unlike organic substances, they are eliminated from the body in the same form in which they enter it.

Food Applications

Having considered in a general way the composition of the body and the material required to nourish it, we are better able to understand the value of various articles of food, particularly under special conditions. For instance, an athlete while in training does not use fat as a diet, for it would increase his weight and would add but little to his muscular power; therefore he must eat chiefly of proteids, such as meats, eggs, etc.. from which he secures additional strength and proper material to replace worn-out tissue, for there is a pressing need of this during excessive and continued exercise; however, if he were to continue his rigid or special diet too long, there would be a deficiency of fat and sugar, and his general health would be impaired. On the other hand, during convalescence from fevers, or where extreme emaciation exists, as in tuberculosis and various other conditions, fatty foods are urgently called for. Aside from the temporary or special instances which have been just related a mixed diet is regarded as essential to continued health and strength, for it contributes to the support of all tissues and functions.

Excessive Quantities

There is not the least doubt that those who can obtain all the food they desire eat far too much. for, like drinking and smoking it is largely a matter of habit, which can and should be curtailed. It is commonly believed that when a large amount of food is taken, the portion which is not actually required at the time is stored up for future use and becomes a protection against disease. There is not only no evidence to substantiate such a theory, but there is indisputable proof that when an excess of food is taken it remains

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undigested, particularly when it consists largely of meats, and fermentative and putrefactive changes occur in the intestinal tract, due to certain forms of germs or bacteria that are always present in this canal. Some of the products of putrefaction which are poisonous are commonly absorbed into the system and are responsible for many unpleasant and sometimes serious conditions; furthermore, an excess of food overworks the organs of digestion, and as a result of this continued strain degenerative changes take place. which later in life frequently lead to fatal results.

Those who will devote a little time to the study of this important subject will find that the most vigorous specimens of mankind are those who are more or less constantly in the open air and eat the simplest food. The Scotch Highlander, whose simplest food. endurance is well known and whose nourishment consists largely of oatmeal, may be referred to as an illustration of this.

The following table is introduced in order that there may be presented a more condensed and convenient means of ascertaining the relative amount of proteids, fats and carbohydrates in the various articles of foods in common use:

before it is taken into the stomach, thus relieving the latter organ of this part of digestion. Kumyss, which is largely used in this country, is an example of this. Various other forms of fermented milk are now also extensively employed here as food. These constitute a most valuable and easily digested nourishment; besides, the lactic acid which is formed during fermentation prevents to a great extent the putrefactive changes in the intestinal canal already referred to. Milk thus treated is in no way medicated and may be taken in about the same amount as the untreated milk.

It is needless in this article to discuss at any length the importance of a pure milk supply, for this subject is being constantly dealt with in detail by the public. It is well known that the milk transmits the germs of infectious disease, for instance, typhoid fever; therefore each family, particularly where there are children, should pay careful attention to the source of their supply. In large cities this is looked after by the municipal authorities; however, when we consider that in New York City alone there are about 2,000,000 quarts used daily and that it comes from many

ina, are often taken into the alimentary tract, usually with ham; and poisoning from this source is of common occurrence in Germany, where this form of food is eaten only partly cooked. These unpleasant results may, as a rule, be prevented by having the meat subjected to a sufficiently high degree of heat to kill the bacteria and parasites which may be present. This may be effected by cooking it long and well, which will secure a temperature from 160 to 200° F. necessary for this purpose in the center of the meat. While this part retains its redness the required degree of temperature has not been reached.

Beef and mutton are so seldom affected in this way that it should not deter those who are fond of rare meat of this kind to continue its use, provided care is observed in its purchase and they are reasonably satisfied that it has not been unduly

exposed or improperly cared for.

Poultry is more easily digested and less stimulating than meat, and is therefore more acceptable to convalescents and weak digestions. Game, such as quail and partridge, are tender and also easily digested, although the practice of keeping

73.50 13.50 11.60

1.40

| Composition | of | Different | Articles | of | Diet' |
|-------------|----|-----------|----------|----|-------|
| | | | | | |

| | IN 100 PARTS | | | | | Fish, salmon (König) | 76.00 | 15.00 | 7.00 | | 2.00 |
|----------------------------------|---------------|----------|-------|----------|-------|-------------------------------------|-------|-------|-------|-------|------|
| | IN 100 I ARIS | | | | | Fish, sole (König) | 86.00 | 12.00 | 0.50 | | 1.50 |
| | WATER | PROTEIDS | FATS | HYDRATES | SALTS | Fish, herrings fresh (König) | 80.00 | 10.00 | 8.00 | | 2.00 |
| Arrowroot | 15.40 | 0.80 | | 83.50 | 0.30 | Flour, wheaten fine | 16.50 | 13.00 | 1.50 | 68.30 | 0.70 |
| Bacon (Letheby) | 15.00 | 9.00 | 73.00 | | 3.00 | Flour, wheaten average | 15.00 | 11.00 | 2.00 | 71.20 | 0.80 |
| Barley meal (de Chaumont) | 11.30 | 12.70 | -2.00 | 71.00 | 3.00 | Goose (König) | 38.00 | 16.00 | 45.50 | | 0.50 |
| Barley pearl (Church) | 14.70 | 7.40 | -1.10 | 75.80 | 1.00 | Horse-flesh (König) | 74.30 | 21.70 | 2.60 | | 1.00 |
| Beef, best quality (König) | 72.00 | 21.00 | -6.00 | | 1.00 | Lentils | 12.50 | 24.80 | 1.80 | 58.40 | 2.50 |
| Beef as supplied to army | 75.00 | 15.00 | 8.40 | | 1.60 | Macaroni (König) | 13.10 | 9.00 | 0.30 | 76.80 | 0.80 |
| Beef, salted | 49.10 | 29.60 | -0.20 | | 21.10 | Maize (Pozziali) | 13.50 | 10.00 | 6.70 | 64.50 | 1.10 |
| Beef, corned or Chicago (Parkes) | 52.20 | 23.30 | 14.00 | | 4.00 | Margarine | 12.03 | 0.75 | 82.00 | | 5.22 |
| Beetroot (König) | 87.00 | 1.50 | | 10.50 | 1.00 | Milk, average cow's | 86.90 | 4.70 | 3.50 | 4.20 | 0.70 |
| Biscuits | 8.00 | 15.60 | 1.30 | 73.40 | 1.70 | Milk, Devon preserved (Blvth) | 90.35 | 4.20 | 1.15 | 3.50 | 0.70 |
| Bread (Rubner) | 39.50 . | 8.00 | -1.00 | 50.00 | 1.50 | Milk, average town | 86.00 | 5.00 | 4.00 | 4.30 | 0.70 |
| Bread, average wheaten | 40.00 | 8.00 | -1.50 | 49.20 | 1.30 | Milk, condensed English (Bell) | 27,00 | 12.00 | 8.40 | 50.80 | 2.00 |
| Butter, English fresh (Bell) | 12.00 | 2.00 | 85.00 | | 1.00 | Milk, condensed Swiss, sweetened | 25.60 | 12.30 | 11.00 | 48.70 | 2.10 |
| Butter, very best (Bell) | 8.00 | 1.00 | 90,00 | | 1.00 | Milk, condensed Swiss, unsweetened. | 61.85 | 11.35 | 11,25 | 13.35 | 2.00 |
| Butter, salt (Bell) | 17.00 | | 80,00 | | 3.00 | Mutton, ordinary | 76.00 | 18.00 | 5.00 | | 1.00 |
| Butter highly salted (Bell) | -17.00 | 1.00 | 74.00 | | 8.00 | Oatmeal | 15.00 | 13.00 | 6.00 | 63,00 | 3,00 |
| Cabbage (König) | 89.00 | 2.00 | 2.00 | 5.50 | 1.50 | Parsnips (Parkes) | 82.50 | 1.30 | 0.70 | 14.50 | 1.00 |
| Cabbage, Brussels sprouts | 85.50 | 5.00 | -0.50 | 7.80 | 1.20 | Peas | 15.60 | 22.00 | 2.00 | 58.00 | 2.40 |
| Carrots (König) | -87.80 | 1.00 | -0.20 | 10.00 | 1.00 | Pork (König) | 47.50 | 16.00 | 34.00 | | 2.50 |
| Cheese, Dutch (Bell) | 41.00 | 28.00 | 23.00 | 1.00 | 7.00 | Potatoes | 74.00 | 2.00 | 0.20 | 21.84 | 1.00 |
| Cheese, single Gloster | -36.00 | 31.00 | 28.50 | | 4.50 | Rice | 10.00 | 5.00 | 0.10 | 84.40 | 0.50 |
| Cheese, poor quality (Bell) | 48.00 | 32.00 | 9.00 | 7.00 | 4.00 | Turnips (König) | 91.00 | 1.00 | 0.20 | 6.80 | 1.00 |
| Cream (Letheby) | -66.00 | 2.70 | 26.70 | 2.80 | 1.80 | Veal, lean (König) | 78.00 | 19.00 | 1.50 | | 1.50 |
| Eel (König) | 57.50 | 12.50 | 28.50 | | 1.50 | *Notter and Firth. | | | | | |
| | | | | | | | | | | | |

A few of the more important articles above referred to call for additional notice.

Milk

Milk is generally regarded as the most valuable form of nutrition, for it contains practically all of the substance necessary to existence. No other form of food is required in early life and an adult may subsist upon it for a while, although its composition, which consists of about 87 per cent. of water, is not sufficient continuously to maintain a grown person in good health. Many cannot digest cow's milk, for the latter is quickly curdled on reaching the stomach and may cause indigestion. In human milk this takes place more slowly and it is therefore better adapted for the human being during infancy.

Cow's milk is easily and quickly digested by the calf, for the stomach of the latter is better prepared promptly to break up the curd. In the far East the objection to animal milk along these lines is met by fermenting it and dissolving the curd

different states, and through many different channels, there is much that the individual can do in selecting a reputable and careful vendor of this important article of diet.

Meat

The meat eaten by human beings is usually obtained from animals which are vegetarians and are not obliged to do physical work, such as cattle and sheep. Animals which are used for labor, the horse for instance, are given proteids, usually in the form of oats, to increase their muscular powers and efficiency; therefore their meat is coarser and not so tender or so palatable as that which is generally used for food.

The use of impure meat is frequently followed by unpleasant or dangerous results, but this relates chiefly to hog meat and occasionally yeal. While it may be due to chemical changes under the wellknown name of "ptomaine poisoning," it is usually caused by the presence of certain forms of bacteria. Parasites, such as tapeworms and trichit for days or weeks for the purpose of developing certain flavors cannot be recommended as a wholesome procedure.

Water Products

While fish is more digestible and less stimulating, and therefore less supporting than meat, it must be eaten fresh, for it rapidly decomposes and becomes absolutely unfit for use. Oysters are nutritious and easily digested, but they must also be eaten fresh. While they are sometimes polluted by sewage, it is probable that the danger in this direction is somewhat exaggerated, although care should be taken to ascertain whence they come, for in certain sections their beds are quite free from contamination.

Lobsters, crabs and mussels are very palatable, but they may not be depended upon for nourishment. They are fit to eat only when fresh, otherwise serious results may follow. This occurs so often in connection with mussels that it is much safer to exclude them as an article of diet.

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May 15

Eggs and Butter

It is hardly necessary to refer to the importance of eggs as an article of food, for their value in this direction is well known. The white of eggs contains the proteids, and the yolk is composed principally of fat. While eggs cannot be adulterated, persons are often deceived as to their freshness, for they may be kept indefinitely by preventing air from passing through the shell. This is done by packing them, or by immersion, or by coating them with impervious matter, such as wax.

Butter is superior to all other forms of fat for the nourishment of the body, and far too little of it is eaten, even when the question of expense is not a factor to be considered.

Cercals

The importance of the cereals as food may in a measure be indicated by their universal use throughout the world. Wheat and oats are the most valuable articles of this class. The various forms in which wheat may be used for food are too well known to call for special comment. Formerly oatmeal was carelessly and improperly prepared for general use, and for this reason was frequently irritating to the intestinal tract; however, its very great value as an article of diet has more recently led to special care in its preparation and it may now be obtained in a very palatable and digestible form. However, it must not be forgotten that oatmeal should always be well cooked. It is necessary only to examine the above table to recognize the richness of oatmeal in proteids and also in other substances required for a mixed diet, and we may turn to the horse for evidence as to its value in furnishing power and endurance.

While probably one-third of the population of the world subsist chiefly on rice, that cereal does not provide the important elements of nourishment contained in wheat and oats.

Peas, Beans and Potatoes

Peas and beans are rich in fat and proteids, and a good dish of soup made from either of these articles makes a very excellent meal.

Although deficient in proteids and fats, potatoes form one of our most valuable articles of diet, for they contain a large amount of starchy food which is required in the nourishment of the body; besides, the juice of the potato is distinctly acid and is of special value, for, with other vegetables and fruits, they supply a material which the system needs and must have. Without them, certain conditions of malnutrition may occur, notably "scurvy."

A Good Diet

The following will illustrate a serviceable diet for a man in good health taking active exercise in the open air and whose food is restricted to bread, butter and fresh meat, with water and coffee to drink: Meat, 16 ounces; bread, 19 ounces; butter or other fat, 3/5 ounces; water, 54 ounces.

Practice has led us to eat three times a day, but if a person is equally well nourished and more comfortable by eating twice daily there is no objection to following this course. Nor is it injurious to eat at night if one chooses to do so, provided proper care is observed in the selection of food: it is the abuse rather than the use of food we suffer from.

Preparation

The value of food depends largely upon the manner in which it is cooked. The latter process properly carried out renders both meat and vegetables far more palatable and digestible, for in the raw state they are tough and stringy. While various means of cooking are employed, there is one method which, so far as possible, should be avoided, and that is frying, for in this way heat is applied through the medium of fat, which penetrates the food and renders it far less digestible than other forms of cooking.

Care in Eating

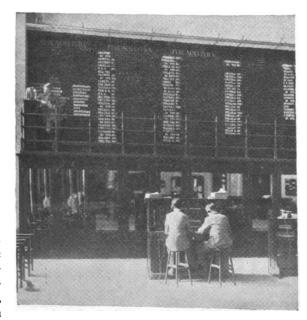
Meals should be taken regularly and with sufficient interval between them to give rest to the digestive apparatus; this should involve at least four or five hours.

Food should be eaten slowly and thoroughly masticated, for this really constitutes the first stage of digestion. Than this, nothing can better indicate the importance of caring for the teeth, for later in life impaired digestion is due largely to their absence or worthless condition. also necessary that the saliva be incorporated with the food, for it is largely through its mixture with this secretion that starch is changed into sugar, the form in which it enters the system.

Those who will follow these simple rules in the selection of plain, wholesome and properly cooked food and are careful not to overeat will be repaid for their effort in the way of better health, better digestion and relief from the many discomforts which so commonly follow overindulgence or the use of improper food.

Present Home of the Philadelphia Stock Exchange

Lately the Philadelphia Stock Exchange moved from the quarters which it had occupied for so many years at Third and Walnut Streets, to its new home on Walnut Street west of Broad. The new building, which is twelve stories high and of light gray granite and brick, has an ideal location opposite the Walnut Street entrance of the Bellevue-Stratford Hotel and next to the Manufacturers' Club, which is now erecting a new club house.



Bell Telephone Booths and Operators at Stock Exchange



Present Philadelphia Stock Exchange

The style of the architecture of the Stock Exchange Building is Italian Renaissance, and it was designed with special care so that there will be the greatest possible amount of light and ventilation. The first-floor corridor is finished in marble, with the elevator screens and ornamental work in bronze. The other corridors throughout the building are of mosaic finished in figured mahogany.

The entire second floor and a part of the third floor of this building are occupied by the Stock Exchange. The rest of the building is devoted to bankers', brokers' and general offices.

The new two-position private branch exchange switchboard of the Stock Exchange is connected with the Spruce central office by 15 trunk lines and cares for 11 stations. Eight of these are located in mahogany booths on the floor of the Exchange; the other three in the offices and clearing room on the third floor.

The American Telephone & Telegraph Company has 17 loops from its Philadelphia switchboard to the Stock Exchange Building. Fourteen of these loops are telegraph circuits (eleven regular and three emergency) and three are telephone circuits for direct long-distance service. The telephone circuits may be converted into telegraph circuits in an emergency. That five of these brokers who subscribe for Morse service have two loops and one three loops shows the great importance of guarding against any interruption of the service. While all of the telegraph circuits terminate on the floor of the Exchange in stalls provided especially for this purpose, some of the A. T. & T. telephone circuits terminate in brokers' offices in other parts of the building where they are used for long-distance calls, but may still, should the occasion require it, be converted into telegraph circuits terminating in the Exchange proper.

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The Central District Telephone Company
The Delaware & Atlantic Telegraph & Telephone Co.
The Diamond State Telephone Company

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Vol. IX

MAY 15, 1913

No. 10

A Successful Season

TEVER have the Company's societies experienced more interest or greater growth than during the season just closing. Never have the lists of speakers or their papers held out better inducements to be present and enjoy the comments. In numerous instances new societies have been formed, old ones have been revived, and well established ones have been enlarged with broader plans. It is plain that all of our employees recognize the advantages of knowing our associates; and by knowing is meant becoming familiar with their view-points outside as well as during working hours. All of this foretells an unusually successful season for 1913-14.

The year's work is thus recalled to impress the fact that right now is the most fitting time to review this season's failings and to determine to avoid them at the outset of the next. Those who have been active in managing the societies during the season just past will in all probability be prominent in like particular during the next. They will find their work running more smoothly if future difficulties are anticipated by recalling former ones now while the memory is fresh and by determining upon means of checking them next season.

Go over the reports of the other successful societies as printed in The Telephone News. See what the others have done to arouse interest. Be determined to boost your society beyond its former records, and, above all, let others know of your plans and of the stages of your success through the issues of this paper.

Food

N the March 15 and April 15 issues of our paper two pages each were devoted to articles by Dr. Alvah H. Doty, Medical Adviser of the Employees' Bene-

fit Fund Committee, on subjects relating to health. The first on "Air" and the second on "Water" were sufficiently entertaining to all of us to be read from beginning to end. It is probable that we could benefit by re-reading and remembering the points which Dr. Doty has ably covered.

This issue contains an article on "Food," which differs from the others in that it contains a table of concrete values of certain foods. It is taken from a standard reference table on the subject and contains a list of the majority of foods in common use.

The importance of pure air and pure water are so well recognized that our youngest employee could, if questioned, give reasons for our need of them. Pure food, in the same way, has been the subject of newspaper articles for as long as papers have been circulated. The Government has endeavored to insure to the people the sale of pure food, but has no means of knowing nor jurisdiction over its condition after it reaches the consumer. The author of this article aims to emphasize the relative nourishing values of common articles of diet as well as to urge great care in the choice and preparation of our foods. We must supply the proper fuel if we expect the physical engine to do its work.

The Right Sort of Spirit

In the majority of instances the telegraph messenger boys work on a commission basis for messages delivered and for those collected to be transmitted. Naturally those of each company strive hard to get the messages that may go by way of the opposition lines. In that particular Western Union and Postal boys are decided opponents.

When off duty, however, or when no subject of moment is at stake, they are equally strong friends. They may be seen together returning from errands or after hours may be noticed playing together.

A Harrisburg (Pa.) newspaper commented the other day on the good spirit displayed by some of these boys. A Western Union boy who was riding on a bicycle was struck by an automobile and so badly injured by the fall that he could not walk. As he was trying to get himself and his wheel out of the street, he was seen by two Postal messengers who were off duty and returning home. The Postal boys put him on the wheel, pushing it with its burden to the Western Union office.

Then they prepared to carry him to the hospital, but an ambulance was summoned. After his injuries were dressed the "business enemies" took their "social friend" home.

That's the spirit that wins every time.

Again—Those Suggestion Slips

AY we suggest that the employees in all parts of our territory note the encouraging results that have been and are being obtained by some Commercial men as a result of the suggestion slips forwarded by Plant and Traffic employees to the local Commercial representatives? Thousands of dollars in net new revenue have been gained for the Company, the majority of which, it is safe to say, would still be among our prospective business were it not for these evidences of personal interest in our continued growth.

It goes without saying that the exchange which obtains no new subscribers is a doomed one, for deaths, removals and the usual quota of "no further use" disconnections (whatever they imply) will cause an inactive Commercial representative to be lacking in patrons in short order. Next to that, an exchange that gains only slowly is rapidly losing its own among those of its class, as the monthly reports show. It will be inspirational to scan the station gain figures for those smaller exchanges which ordinarily receive only cursory glances. In them the greatest opportunities often lie, inasmuch as less effort has been expended on their development. In other words, cultivation will produce results in every neighbor-

One of the most helpful points for consideration is that of the repeated efforts of our Traffic and Plant associates. Month after month we see certain names of slip forwarders, and we know that they at least are still doing their part toward the good work. It is a slight thing to ask, but none the less productive of good, when the employees, whose main efforts are directed toward other lines, continue to fill out and send these tips about prospects.

Again, we urge upon our business-getters the desirability of urging those who have not sent in slips to obtain them and to make it a practice to be on the lookout for prospective patrons. There is a decided satisfaction in this work, and as others are encouraged by such evidences of personal interest, let's exhibit it each month.

Our Societies

The Philadelphia Telephone Society

Metropolitan Opera House, Broad and Poplar Streets, Philadelphia, Tuesday evening, May 20, 8 P.M. Final meeting of the season, with addresses by various officials of the Company.

Northern Pennsylvania Telephone Society

Friday, May 16, 8 P.M., Y. M. C. A. Building, North Franklin Street, Wilkes-Barre, Pa.

Speaker: Mr. H. F. Thurber, Vice-Presi-DENT.

Subject unannounced.

The Spare Pair Society

Room 6A, Parkway Building, Broad and Cherry Streets, Philadelphia,

Thursday, May 15, 8 P.M. Speaker: Mr. J. L. Kilpatrick, Engineer of

Equipment and Buildings.

Subject: "Some Facts Concerning the Flood in the Western Division.'

The Transposition Club

The annual meeting of the club will be held in Hotel Henry, Pittsburgh, on May 15. There will be no paper but the Division department heads will be present as guests of honor.

The Telephone Society of Pittsburgh

The April meeting was held in the Jenkins Arcade Auditorium on April 25.

The speakers: T. R. F. Peyton, District Manager, Uniontown, Pa.; S. B. Williams, Plant Supervisor, Erie, Pa.; C. A. Wilder, Traffic Supervisor, New Castle, Pa.

The subject: "My Duty to the Other Departments in Serving the Public."

The following participated in the informal discussion: Messrs. Jenkins, Lehmann, Dake, Collette, Gauss, Mansfield. Haseltine, Hauff, Crumrine, Gordon and Griffith.

The Camden Telephone Society

The second annual banquet of this society will be held at the Ridgway House, Delaware Avenue and Market Street, Camden, Saturday evening, May 17, at 8 o'clock sharp.

The society now has 58 members, and they together with the guests are expected to number 70 at this dinner. It is the last event of the season for this society.

An Enjoyable Event

A ball game between the married and single men of the Engineering department, Philadelphia, was played at Swarthmore, Pa., Saturday, May 10. The supporters of both sides were there in

The Telephone Society of Harrisburg

THE annual meeting of this society was held in the Board of Trade Auditorium, Harrisburg, Monday evening, April 21.

A very short business meeting was held in order to dispose of the routine business and the following officials of the Company delivered short addresses: J. S. Wiley, General Auditor, New York; J. H. Crosman, Jr., General Commercial Superintendent, Philadelphia; W. T. LaRoche, General Superintendent of Plant, Philadelphia; F. I. Daly, Assistant Secretary and Assistant Treasurer, Philadelphia; J. H. Hons, Division Auditor of Receipts, Philadelphia. The minstrel act was written and staged by Messrs. Jerome Hamilton and S. B. Watts. Mr. Hamilton featured Bert Williams' old song, "Constantly," and his work was one of the hits of the evening. With the same success, James Knier featured "When the Midnight Choo-Choo leaves for Alabam." Mr. M. E. Morgenthal sang "Ting-Ting-a-Ling," a typical telephone ballad, which was received with the greatest enthusiasm. Another feature of the evening was a baritone solo by Fred F. Lutz, "Till the Sands of the Desert Grow Cold." He was encored three times. The quartet number, rendered by Messrs. Steever, Hamilton, Lutz and Sigler, was received with much applause.









Organization Changes

The Bell Telephone Company of Pennsylvania

J. S. Ferguson, I. Eicher and I. O. Nevel, Gang Foremen, have been transferred from the C. D. Tel. Co.

D. S. Raynor, Assistant to Traffic Engineer, transferred from Bell to D. & A. T. & T. Co.

Herbert Wile, Automatic Collector to Inspector. transferred from Commercial to Plant, Philadelphia.

P. S. Harkins, Plant Engineer to Plant Supervisor, Harrisburg Division.

Hugh E. Soulis, Student Engineer, transferred from Bell of Pa. to C. D. Tel. Co.

Wayne Ritchie, Cashier to Chief Clerk (Germantown), Philadelphia, Pa.

Mary M. Travers, Clerk to Cashier (Germantown), Philadelphia, Pa.

Anna Droughman, Clerk to Assistant Cashier, Philadelphia, Pa.

O. R. Denning, Loop Foreman to Gang Fore-

man, Altoona, Pa. John N. Stokley, Mechanic to Assistant Storekeeper, Philadelphia. Pa.

É. Jones, Tester to Foreman, Philadelphia, Pa.

The Delaware & Atlantic Telegraph & Telephone Company

Thomas F. Swords, Traffic Inspector to Traffic Supervisor, Atlantic City, N. J.

The Diamond State Telephone Company

H R. Burns. Adjuster to Service Inspector, Wilmington, Del.

The Central District Telephone Company

G. W. Cahoon, formerly Assistant Managing Editor, The Telephone News, Philadelphia, has been appointed Directory Advertising Manager, Pittsburgh.

G. A. Curry, Cable Foreman to District Cable Foreman, Pittsburgh, Pa.

R. D. Guinnip, Splicer to Cable Foreman, Pitts-

burgh, Pa. J. R. McCombs, Senior Line Foreman to Dis-

trict Line Foreman, transferred from Pennsylvania to Pittsburgh District.

L. J. Shaughnessy, District Salesman to Division Salesman, Pittsburgh, Pa.

R. W. Healey, District Salesman to Division Salesman, Pittsburgh, Pa.

H. L. Badger, District Plant Superintendent, transferred from Bell of Pa. to C. D. Tel. Co.

M. W. Hahn, Senior Cable Foreman to District Engineer, New Castle, Pa.

Geo. McCord, Fieldman to Construction Fore-

man, New Castle, Pa. W. W. Austin, District Cable Foreman to Cable

Testing Engineer, Pittsburgh District. J. J. McCombs, Cable Foreman to District

Cable Foreman, Pittsburgh District. W. F. Wakefield, Foreman to Cable Foreman,

Pittsburgh District. Stephen Barry, Assistant Foreman to Line

Foreman, Pittsburgh District.

Cable Foremen's Conference

Usually the foremen in the Cable Division, working in Philadelphia and surrounding territory, have a monthly conference in the office of the Supervisor of Construction at Philadelphia. At times the subjects to be discussed are of interest only to some of the men, and other men may be on particular jobs which may not be postponed. Thus the number attending the conferences may vary from twenty to sixty.

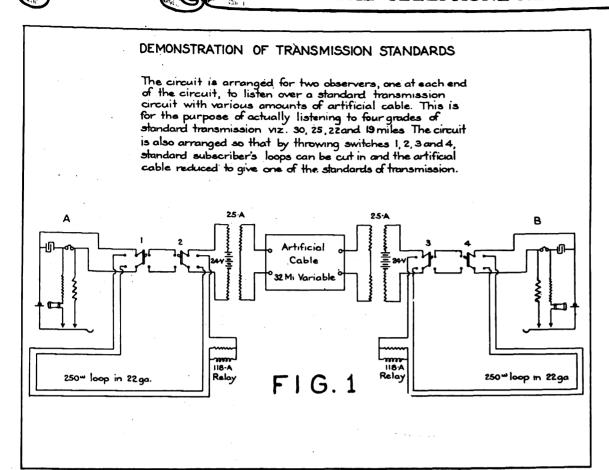
Suggestions and comments are made freely by all present, as at all other conferences, and good always results. Notes are made and typewritten copies are sent to all foremen who were absent so that all may benefit.

Pressing work and other reasons have postponed several conferences during 1913, so that the first one was held May 5 at Seventeenth and Filbert Streets. Among the minor subjects brought up were an improved tool-bag and a tooltesting machine.

Germantown, Philadelphia, Traffic Plan

Once a month the operators appoint one girl to collect interesting and amusing information in connection with telephone operating. This information is neatly compiled and left in the rest office. Particular mention of any of the operators who have been responsible for good work in the room is made in this list.





Transmission Conference

By P. W. England, Plant Engineer, Philadelphia

CONFERENCE was held on March 25, 1913, in our building at Seventeenth and Diamond Streets, for the purpose of familiarizing the maintenance and cable men with some of the more important facts concerning transmission. It was organized by the Plant Engineer of Philadelphia, with the assistance of the Engineer of Transmission and Protection. The general object in calling the conference can best be stated by quoting in part from the address of the Plant Engineer:

"This conference is the first of its kind to be held in Philadelphia. Its object, briefly stated, is to explain in as simple a manner as possible the direct relation of the various elements entering into the problems of transmission, to the care and maintenance of the Telephone Company's plant. The Telephone Company is in business to furnish good service to the subscriber. The latter knows nothing and cares less about the various factors that enter into the transmission question. He is solely concerned in getting good service, dependable service, in being able to talk clearly and hear plainly over his line, whether it be long or short. The Telephone Company is in business to give such service. But at the same time it must do this in an economical manner so as to make a fair return upon the money invested in the business. Recent developments in the transmission art are of the utmost importance both to the subscriber and the Telephone Company in that they enable the maximum quality of service to be given at the minimum cost.

"The transmission art has developed very rapidly within the past few years, more particularly since the year 1902, or about the time of the first application of the now familiar Pupin loading coil system. I think I am safe in saying that the transmission art has developed much more rapidly than the comprehensive understanding of it on the part of the maintenance and traffic forces, and the primary object of this conference

is to explain and demonstrate to the maintenance men, in as clear and simple a manner as possible, some of the fundamental problems of transmission as they relate to the quality of service to be rendered. It is not strange that the work of the Transmission Engineer is generally viewed by the practical man with a certain amount of skepticism, or I might better say, with a certain amount of tolerance, rather than with approbation, for the reason that there are so many theoretical factors involved and so much that is extremely difficult of comprehension by any but the trained engineer. It is of the utmost importance that this

attitude of skepticism or tolerance be dispelled. and one of the chief objects, in fact the fundamental object, of this conference is to bring together the Transmission Engineer and the maintenance man, and to popularize, so to speak, what has hitherto been looked upon largely as a purely theoretical proposition."

The following program was carried out under the direction of Mr. F. C. Moody, Plant Superintendent, who acted as presiding officer:

9:15- 9:45-"Introductory Remarks," L. H. Kinnard.

9:45-10:00—"Object of the Conference," P. W. England.

10:00-10:15-"Address," W. A. Eipper.

10:15-10:30—"Some Thoughts on Transmission," H. Mouradian.

10:30-12:30-"Experimental Observation of Standards and Determination of Transmission Losses," E. B. Tuttle.

This work consisted of the making of actual tests with artificial cables by all the men present and was preceded by a short explanation of trunk and subscriber loop standards.

12:30- 2:45—Lunch at Bingham House.

2.45- 3:15—"Some Applications of the Principles of Transmission in the Philadelphia Plant," L. C. Metz.

3:15-4:15—"The Bulletin on Transmission Equivalents," E. B. Tuttle.

This work covered the explanation of the more important curves.

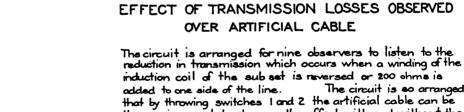
4:15- 5:00-"Cable Installation and Maintenance," D S. Hilborn.

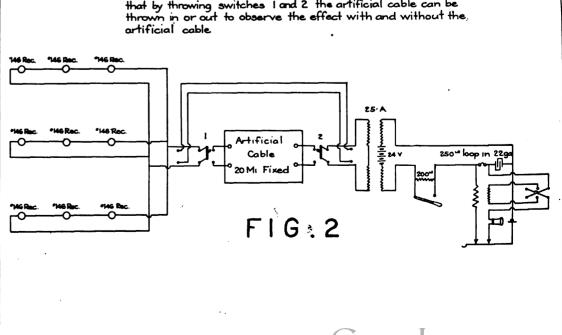
5:00- 6:00—General Discussion.

The following is a brief synopsis of the main points brought out at the conference:-

I. Explanation of Transmission Equivalents and Units

P. W. England gave a preliminary explanation of the meaning of the standard unit of transmission. E. B. Tuttle then described in a more technical manner the meaning of the transmission standard and transmission equivalents, and gave a very clear and interesting description of the





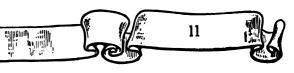


DIAGRAM SHOWING LENGTH IN MILES OF VARIOUS GAUGE CABLE AND WIRE TO GIVE TRANSMISSION EQUAL TO ONE MILE OF THE STANDARD CABLE (19 GAUGE).054 M.F.CAP.

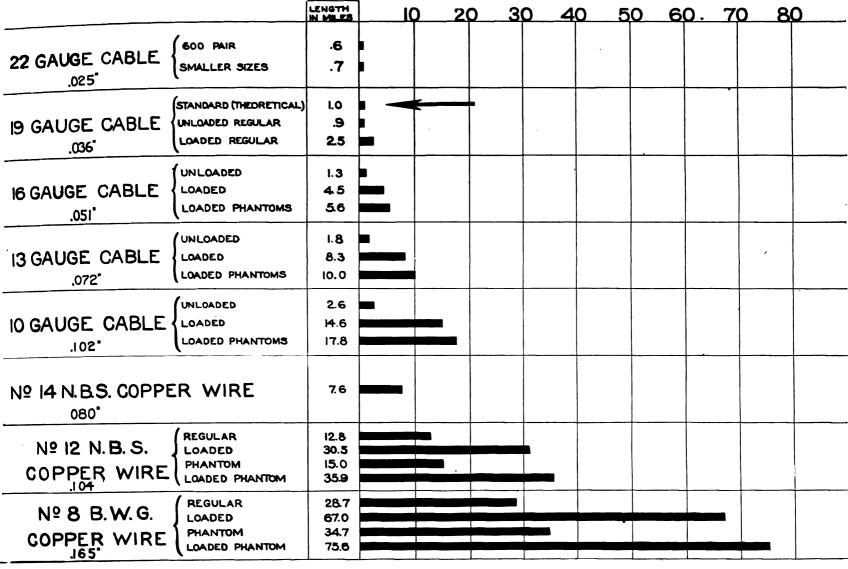


FIG. 3

more important curves which accompanied the "Bulletin of Transmission Equivalents."

L. C. Metz presented an interesting diagram (Fig. 3) showing the permissible lengths of different grades of conductors that would give the same transmission loss as one mile of the standard cable.

II. Listening to Actual Standards of Transmission

H. Mouradian spoke of the standard losses that are permissible between various exchange districts, ranging from 19-mile to 30-mile transmission, depending upon the distance between the exchange districts. Fig. 4 shows the method of dividing the city of Philadelphia into so-called "Metropolitan" and "Suburban" areas. Between exchange districts within the "Metropolitan" area the standard is 19-mile transmission, from "Metropolitan" to "Suburban" it is 22-mile transmission, and from "Suburban" to "Suburban" it is 25-mile transmission. Between the "Metropolitan" or the "Suburban" areas and toll points in D. & A. and Eastern Districts the standard is between 25-mile and 30-mile transmission.

E. B. Tuttle explained the demonstration circuit which had been connected up in the conference room to afford the men present an opportunity of listening to various standards of transmission. The wiring of the circuit is shown in Fig. 1. Two booths were set up, one telephone in each, and the artificial cable placed in the circuit

cuit connecting the booths. By the manipulation of switches, varying lengths of the artificial cable could be cut into the circuit, giving the standards of transmission. When two subscriber loops were cut in, it was necessary to remove eight miles of the artificial cable from the trunk, in order to give the same transmission as without the subscriber loops in the circuit.

All of the Wire Chiefs present took part in the demonstration and listened to the various qualities of transmission which are standard in the Philadelphia territory. Five arrangements were made for each conversation, as follows:

Subscriber loop out and 19 miles in trunk gave 19 mile transmission
" " in " 11 " " " " 19 " " "
" " " " 14 " " " " " 22 " "
" " " " 17 " " " " 25 " "
" " " " 22 " " " " 30 " "

III. Observation of Transmission Losses With and Without Artificial Cable

The Engineering department has been experimenting for some time with an artificial cable, equivalent to 20 miles of 19-gauge cable, for use by the Wire Chief in testing for trouble on subscriber loops. By placing this cable in a subscriber circuit it was expected that difficult pieces of trouble would show up more readily than without the artificial cable in the circuit. In order to determine, if possible, whether or not this is actually the case, comparative tests were made at the

conference both with and without "trouble" in circuit with the artificial cable, also with and without "trouble" in the normal circuit, and the results obtained were recorded and tabulated. The circuit used in these experiments is shown in Fig. 2. The final conclusion reached was that, in the present state of development of the artificial cable, no particular benefit results from its use in detecting trouble. Discussion seemed to show that no definite advantage has resulted from the artificial cables which are now installed at eight of the central offices in Philadelphia. It was generally agreed that modification was necessary in the artificial cable in order to make it of value for testing purposes.

IV. Central Assignment Bureau

W. A. Eipper and L. C. Metz spoke on the subject of establishing a central bureau for the assignment of conductors for trunks, toll circuits and private wires. On account of the complexity of duplex and combination cables and the different varieties of terminal apparatus, it was thought that such a centralized assignment bureau would possess decided advantages from both the transmission and financial standpoint. The discussion on this subject indicated particularly the fact that transmission and traffic men were in favor of the proposition, while several of the Wire Chiefs opposed it, the majority of the latter, however, being in favor of a central bureau. Mr. Moody

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suggested that a committee be appointed to make a fuller investigation of the matter, the committee to include some of those opposed to as well as in favor of the proposition.

V. Maintenance of Duplex Cables

D. S. Hilborn described the tests which are necessary in connection with the installation of duplex cables. These tests are what are technically known as "capacity unbalance tests." Mr. Hilborn showed in detail the complex nature of the tests, the large number required and the expense involved. On account of this condition of affairs he emphasized the importance of reporting at once all cases of trouble in duplex cables, however slight, so that repairs could be made promptly, thus eliminating, as far as possible, the necessity for installing a new section of cable with the consequent heavy expense for testing.

The following were present:

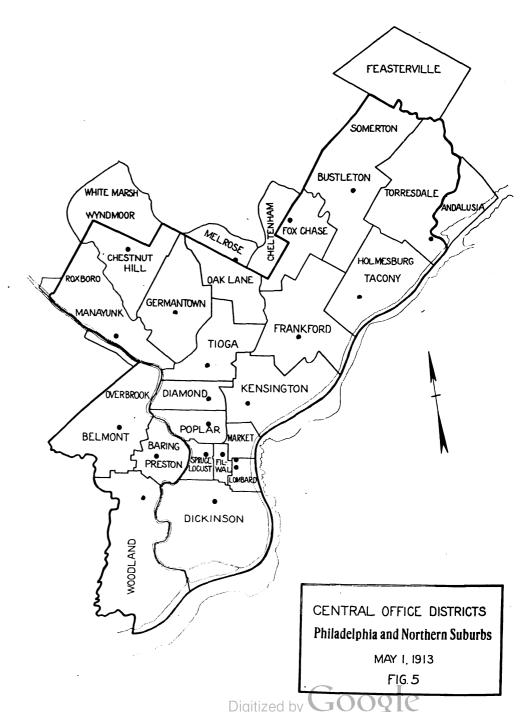
L. H. Kinnard, F. C. Moody, H. Mouradian, E. B. Tuttle, J. S. Beckman, H. N. Reeves, H. B. Engle, G. D. Heald, W. W. Brittain, D. S. Hilborn.

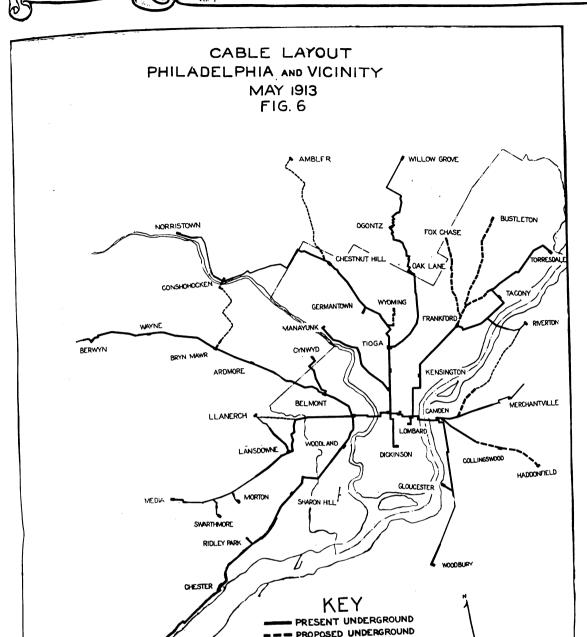
Plant Engineers' Division—P. W. England, L. C. Metz, H. R. Clegg, C. E. Humphreys, W. Spofford, E. J. Sithens, L. C. Gainor, J. W. Abel J. P. Fleming, R. H. Irvine, D. C. Paul, W. A. Scheible, C. A. Swisher, K. H. Huch, H. W. Nelson, J. A. Zelley.

Maintenance Division—W. A. Eipper, W. A. Stover, H. W. Ulrich, R. Bevan, J. A. Emmons, W. T. Fagan, C. E. Gouff, W. Hamilton, G. T. Hannahs, J. T. Hindle, I. B. Jones, M. L. Laiferty, J. H. McConnell, H. Peters, W. Raynor, C. F. Street, J. W. Tobin.

Traffic Aid to Board of Trade

A. O. Deshong was a very wealthy philanthropist who owned property in the heart of Chester. Pa. It extended from Ninth to Twelfth Streets and from Edgemont Avenue to the Chester Creek. All of this together with a valuable collection of curiosities and a fund for the erection of a library were willed to the city. On the day before this man's funeral, which occurred April 23, the Secretary of the local Board of Trade telephoned our District Manager and asked if we would request the business subscribers to suspend activities for a short time in respect to the memory of this public benefactor. This was done and a letter of thanks followed.





PRESENT AERIAL

PROPOSED AERIAL

One of Two Friends

A Philadelphia subscriber who had been quarantined wrote to our Cashier:

Phila., April 28, 1913.

The Bell Telephone Co., Phila.

Gentlemen:—Enclosed please find check to cover bill for telephone service.

During the period which this bill covered, I was unfortunately under quarantine, and it affords me considerable pleasure to state that our telephone proved to be one of two friends whom we could rely upon. I scarcely know how we should have managed with any degree of comfort without your service.

Without a telephone under these distressing conditions, a home must indeed be isolated from outside cheer.

Yours truly,

A Girl Who Succeeded

(From the Philadelphia Evening Telegraph)

Not long ago a young woman in this city—a student in a school of applied art—decided, after she had completed her training, to go to work in an interior decorator's shop. She was willing to offer her services for a few weeks for nothing.

She went about getting a position in a businesslike way. Having borrowed a classified telephone directory, she proceeded to copy the names of all the interior decorators in the city and then, putting her pride in her pocket, she went out to ask for work.

It was a bad season to take on new help, for one thing, but, after walking eight hours in various parts of the city and visiting twenty shops, she got a place. Here they accepted her services—from half-past eight in the morning till six at night without pay.

The next day the young designer was given ten dollars a week. Within two months she was earning twenty-five dollars a week.

Accounting Circular

Effective May 1, 1913

On January 1, 1913, it was necessary to issue a revision of Accounting Circular No. 1 in order to conform to A. T. & T. Company's Accounting Circular No. 8, which is in accordance with the accounting prescribed by the Interstate Commerce Commission.

In order to cause as little confusion as possible the changes were confined to cases where the definitions of certain accounts were changed or amplified and where new accounts were provided, no changes being made at that time where only the code numbers were affected.

Under this arrangement it was necessary for the Accounting department to summarize the accounts under the old code numbers and then reclassify them under the new code numbers before entering same upon the records of the Company.

After four months' experience with revised Accounting Circular No. 1, giving the field forces sufficient time to become thoroughly familiar with the changes in the definitions of the accounts, it was decided to issue Accounting Circular No. 2, effective May 1, 1913, in which the code numbers of the main accounts are the same as those contained in A. T. & T. Accounting Circular No. 8.

This necessitated a change in the main account code numbers in every case, but the simplified code, known as the "letter code" and used principally by the Plant department to designate the various classes of Plant work, was only changed in the following instances:

Extraordinary Repairs (formerly designated by the letters E. R.) is now designated by the letter Y. In reporting charges to this account extreme care should be taken in writing the letter Y in order that it may not become confused with the letter X, the letter designation of "Removal Expense."

The letter D has been adopted to designate "Depreciation—Value of Plant in Place," this having been formerly reported as Code No. 275.

It was necessary to change the code numbers of the geographical divisions of the Companies, for the reason that some of the old code numbers of the geographical divisions are now used to designate main accounts.

The new geographical code numbers are as follows:

810—Philadelphia Division
820—Eastern

830—Harrisburg

840—Western

851—Pittsburgh

850—Penna. Elsewhere

860—Ohio

870—West Virginia

880—New Jersey

890—Delaware

801—Undistributed—Bell of Pa.

802—

"C. D. Telephone Co.

Accounting Circular No. 2, as issued, contains 71 pages:

Two pages, a and b, give the codes under Accounting Circular No. 1 and the corresponding codes under Accounting Circular No. 2.

Sixty-five pages, Nos. 1 to 65, inclusive, give the definitions of the various accounts.

Four pages, Nos. I to IV, inclusive, give a complete index.

Upon receipt of Accounting Circular No. 2, Accounting Circular No. 1 shall be destroyed, and the new circulars shall be bound in the same covers as were used for Accounting Circular No. 1



Allentown District

Approximately \$600 worth of revenue has been obtained during April from suggestion slips forwarded by these members of the Bell Triangle Club: Misses Belford, R. Boyle, V. Burns, K. Flory, M. V. Kemmerr, Klein, K. Leibert, M. Prendergast, S. Ruth, S. Schleicher, L. Welsh and F. Willauer. The men who sent slips were Messrs. W. Anderson, George Barber, E. R. Buchman, C. Bucknor, Jr., H. D. Carey, P. Detwiler, J. Gaffney, F. A. Graver, A. Gregg, Carl Hevener, J. F. Martin, J. S. Miller, S. E. Sherer, J. S. Short and E. Weaver.

WOLF.

Scranton District

The Guerney Electric Elevator Company of Honesdale, Pa., has installed in the new plant No. 1 private branch exchange service with two trunks and eleven stations, superseding one direct line and two extension stations.

A man called at the Scranton office and said that he had placed three calls at a public telephone Bell booth for New York, Boston and Chicago respectively and one for a near-by city in Pennsylvania over another company's line. He transacted his business with New York, Boston and Chicago within thirty minutes after the calls were placed, and after waiting some time longer for the other call he canceled it. He said he thought it due our, Company to tell us of the excellent service he had received. SMITHING.

Wilkes-Barre District

Employees of the Hazard Manufacturing Company of Wilkes-Barre—one of the largest wire companies in the United States—were shown through our central office the other day. Their product is sold in large quantities to the Western Electric Company and used in Bell central offices. Once a week the Western Electric inspector visits the Hazard plant. After the visit of these employees to our office a letter of thanks, signed by the General Manager, was sent to our District Manager for the attention shown to them.

The graduating classes from the Pittston High School visited the new central office in Pittston. They were divided in three parties, each chaperoned by a teacher. The first party started on its tour of inspection promptly at 9 A.M. Each party had been limited by the principal to one hour, but the members became so enthusiastic that orders were forgotten and the inspection tour of the last party was cut short at 12:25 P.M. in order to return for the afternoon session. The first period in the afternon session in the school was taken up by a discussion of the telephone central office. The principal of the school called the Local Manager to thank him for the courtesy shown to the students and arrangements were made for a lecture to be given on the "Marvels of the Telephone" by C. F. Brisbin, District Manager, Wilkes-Barre District. The lecture was given in the Y. M. C. A. Auditorium and was illustrated by stereopticon views. The audience was composed of students, teachers, school board and their friends. Mr. Brisbin later gave the same lecture before members and friends of the West Pittston Hose Company.

The graduating class from the Hughestown School made a tour of inspection of the same central office. The principal of the school has asked permission to visit it again with another party of teachers and students.

A Pittston salesman recently obtained an application from a man who had his back broken about seven years ago and has since been confined in bed. He makes his living by hammering brass novelties and selling them. A portable desk telephone was installed at his bedside.

No. 2 private branch exchange service with nine stations has been installed in the Wyoming Shovel Works, Pittston exchange district. This replaces a privately owned intercommunicating system. SHAFER.





Night and Day Views of Electric Sign at Harrisburg, Pa.

Going After the Business

The Joseph Horne Company (department store) of Pittsburgh used nearly a half page in the city papers of April 22 urging subscribers to order by Bell telephone from the order table just installed in that store.

From the beginning to the end of this clearly worded advertisement the telephone is featured. It begins: "Right at your hand is your Bell telephone." Then is explained in detail how the message is received and the order filled. The closing paragraph calls attention to the busy moving days and says: "Many of us are moving to new homes and most of us are getting our homes in shape for the new season. The Telephone Order Department will lighten the burden and make the work easy because the things you want will be brought to your door with the expenditure of but a few minutes of your time."

A theatre program contained a two-page advertisement by the same firm illustrating the order table and soliciting telephoned orders.

Uniontown, Pa., District Prospects

The handling of the Western Union business in connection with the telephone business at our joint office in Morgantown, W. Va., has proved of great assistance to the Commercial department Each day a list of persons without telephone service, to whom telegrams have been sent, is given to the salesmen for prospects. In April, from a list of fourteen names, five became subscribers to our service,—showing the good results to be obtained from following up such prospects.

Philadelphia Business

The Philadelphia employees doubled the March net revenue from suggestion slips by obtaining 177 stations in April netting \$5395 worth of annual revenue. The suggestions from single employees varied in results from \$3 to \$400 Eighty-five Plant employees and thirty-two Traffic workers sent in slips.

Excellent letters commending our service have been received by Germantown representatives of our Company in Philadelphia lately. One read in part as follows:

"Last month my child was taken ill with diphtheria, and unfortunately it terminated fatally. We, of course, were quarantined. I wish to make grateful acknowledgment of the splendid service received during this trying period when, at times, every moment counted.

"I wish to thank particularly the workers who so efficiently and courteously handled these calls to doctors, nurses, druggists, etc. It gives us the consolation that not a precious moment was lost in doing that which could de done.

Very truly yours,

Another from a representative of another public service corporation ended:

'At the same time we want to express to you our general satisfaction with the operation of your service.

Yours very truly,

Another from a druggist read:
"I wish to commend you upon the prompt service you rendered me upon changing the location of the telephone.

"The treatment you and your employees accorded me was courteous and obliging.

"Trusting that our relations in the future will be as pleasant as in the past, I beg to remain,

Another from a railroad official refers to the work of Traffic Inspector L. McK. Bryan of the Germantown District:

"Referring to the matter of transferring the to Ogontz telephone service from Ogontz -, I desire to thank you for the prompt and efficient manner in which this matter was handled. If you will send me a new contract. if one is required, I will execute and send you by return mail.

Very truly yours,

A Chestnut Hill direct line subscriber was 50 pleased with the service that she called personally at the central office to thank the Chief Operator. When shown provisions made for the operators comfort she was plainly surprised and said that she was sure these had much to do with bringing such good service.







Reconstruction Work, Brockwayville, Pa. (See Butler District News)

Dittsburgh Division~ Z.Z.HUGUS, Division Correspondent

Butler District

The work of reconstructing the Brockwayville (Pa.) exchange and placing 5000 feet of cable is rapidly nearing completion. A photograph is reproduced to show the work at one pole in charge of Foreman W. D. Maloney. The estimate covering this work provides for an expenditure of \$3500. Brockwayville exchange, in the Dubois Sub-District, serves 160 subscribers.

What is thought to be a record for handling telegrams was established at our Dubois joint office recently. A message was filed at 4:45 P.M. for Portland, Oregon, and the answer was delivered at 6:05 P.M. The message and answer were handled in one hour and twenty minutes, having passed through at least six relay offices in each direction.

As a compliment to the local operating force one of our Dubois subscribers, a daily user who travels over the greater part of the United States, stated to our representative recently that the service in the Dubois Sub-District is far ahead of any he has used during his travels.

Erie District

An application has just been received from the management of the New Lawrence Hotel at Erie for private branch exchange service to consist of a switchboard, three trunk lines and 184 stations. This is the second application for this class of service obtained in Erie during April. The third P. B. X. application for the month was received from The Erie Lighting Company for two trunks, one switchboard and eleven stations.

During the week ending May 3 the stock company which is playing at the New Eleventh Street Theatre at Erie, Pa., presented "The Telephone Girl." The theatre people were furnished with 18 operator's sets and one No. 101 switchboard, a rather startling installation! The stage was illuminated with our Blue Bell public telephone signs. Besides being a great accommodation to the theatre people, it afforded us a good opportunity to accomplish some effective advertising.

100

Pittsburgh District

"Moving season" in Pittsburgh has been an unusually busy one this year. During March and April 2161 removal orders were issued in the Pittsburgh office. The crest came on May 2, when 128 orders were issued. It is also interesting to note that the next gain in stations during April, "the month of moves," exceeded the estimate.

Recent visitors to the Grant central office, Pittsburgh, included the 51 members of the graduating class of McKeesport High School. They expressed themselves entertained and instructed by the interesting visit.

Enclosed in an envelope with ten cents—evidently conscience money—was the following note:

"This is to pay for the message sent by the lady who talked over the time Wednesday."

A check for a \$5.00 refund brought a pointed and businesslike acknowledgment from the Pittsburgh house of a Troy collar manufacturing firm.

Uniontown District

The town of Broad Oaks, adjoining Clarksburg, W. Va., and included in the initial rate area of that exchange, has granted the Company a franchise. Extensive additions to our plant will be made in that section in the near future.

Several Plan "A" rural companies are being organized in the Morgantown, W. Va., Sub-District. On April 25 the Baker's Ridge was organized with eleven subscribers, the last subscriber being located at a distance of eight miles from the Morgantown central office. The Rock Forge and Sturgisson, a recent Plan "A" rural line, is

A German butcher who recently had telephone service installed in his place of business at Morgantown, W. Va., placed his first long-distance call to wholesale meat packers at Wheeling, W. Va. After giving the call to the Long Distance operator, he requested that she inquire of the meat packers if they had "Polish Bologna," stating that if they did he wanted to talk, otherwise he would cancel the call!

A subscriber in the Uniontown exchange, who is afflicted with stammering speech, makes daily calls to the operator asking for the weather report. At first it was with difficulty that the operator learned what was wanted, but now she has become so familiar with the voice that as soon as the subscriber calls and the stammering is begun she immediately gives the weather forecast for the day and relieves the subscriber from her embarrassing position.

The good results to be obtained from having subscribers visit the central offices and familiar-

ize themselves with their workings were further demonstrated by the following: A subscriber served by the Dunbar (Pa.) exchange was taken through the Uniontown central office, and among other things the necessity of calling "Rural" in order to be connected with the operator handling those lines was explained to him. Several days after his visit he wished to talk to a person in the "country" district and upon taking down the receiver asked the operator for "Rural." The line was reported busy and in a short time he again asked the operator for "Rural." At this one of his friends in the office, who had been paying particular attention to his manner of calling, asked what he meant by asking for "Rural" The subscriber proudly replied, "I've been up to Uniontown getting educated!"

The rural line development in the Uniontown exchange is a source of pride. Many of the lines are from six to ten miles long and serve very isolated districts. On April 1 there were forty rural lines with 392 stations. In addition there are 23 individual lines with 65 stations which serve the coal and coke companies' plants scattered about Fayette County. All these were until recently common battery lines on which, because of their length and in some cases their construction, there was at times maintenance trouble. To have a busy coal or coke company's line out of order was a serious condition. It was decided, therefore, to change these lines from common battery to magneto. This necessitated the installation of a magneto position on the Uniontown switchboard. The work of changing the telephone sets at the subscribers' stations was then started and we now have all of these lines coming in on the new magneto, so-called "rural" position. As each line was changed the call number was also changed to one in the five thousand series. Now an operator, receiving a call in the five thousand series, informs the subscriber that she will give him "rural." She plugs into a trunk which automatically lights a signal in front of the "rural" operator. The latter takes the call and does the ringing. With the "rural" position we gain the advantage of having this class of service well recognized, and the operators who handle these calls through specialization become more skilled in their handling than if they were required to take care of them together with the other classes of calls. This is especially true of the code ringing.

BE COURTEOUS

when speaking over the phone to the public or to fellow employes.

It will promote your standing with the company.

It will promote the company's standing with the public.

Prevention is Better than Remedy.
Your time is valuable, but the company prefers that
you spend a few minutes more and give satisfaction
than to cut a person "short," thus causing misunderstanding.

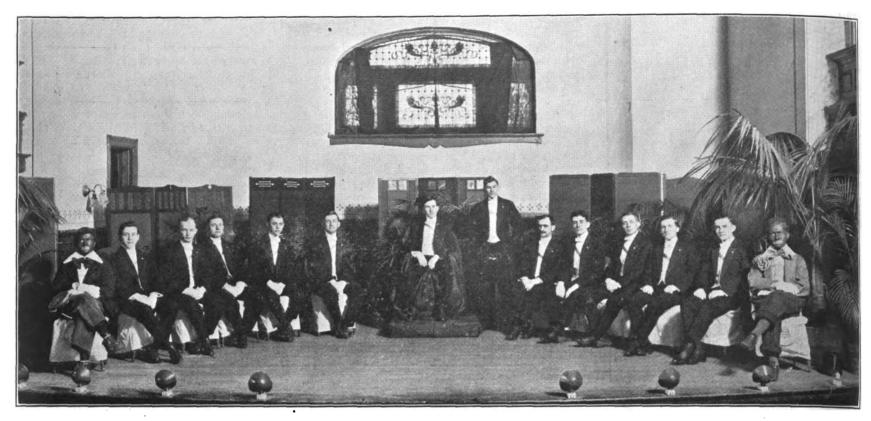
Reproduced in smaller size is the wording of a card used on all telephones of the West Penn Railways Company at Connellsville, Pa.

MISS HEPPLEWHITE.



16

Minstrel Troupe—The Telephone Society of Harrisburg—(See page 8)



Left to right:—Jerome Hamilton, E. Kilhafner, W. A. Gulbrandsen, R. Strickler, H. W. Steward, F. F. Lutz, S. B. Watts, Chas. Le Fever, C. A. Schell, R. Kulp, H. A. Sigler, R. Swope, M. E. Morgenthal, J. Knier

Chorus—The Telephone Society of Harrisburg—Annual Meeting



Conductor, F. F. Lutz

Accompanist, Chas. Le Fever

Left to right standing:—C. A. Schell, H. R. Behrens, B. H. Overpeck, R. Swope, H. Sigler, L. Hamilton, L. Jenkins, H. W. Steward
Left to right seated:—W. A. Guldbrandsen, S. B. Watts, H. S. Bigaman, R. Strickler, C. L. Hope, E. Kilhafner, C. Le Fever, F. F. Lutz, A. Moore,
R. W. Catanar, R. Kulp, M. E. Morgenthal



Messrs, W. Benerman W. Bradford J. Huber F. P. Rountree Margaret McCauley Misses Carrie Old Viola Spencer M. D. Vance Carrie Tennent Participants in the Maids' and Waiters' Dance

Philadelphia Telephone Society Fun-Celebration of Tenth Anniversary of Our Largest Society

EN years in telephone history is a long time, but ten years applied to telephone societies in our territory would antedate all but The Philadelphia Telephone Society. Its tenth anniversary, celebrated Tuesday evening, May 20, was the most notable event and one participated in and enjoyed by more em-

ployees than any previous gathering.

The pleasure began before the curtain rose, when both recent and long-time employees discovered acquaintances scattered throughout the ample audience room of the Metropolitan Opera House, Broad and Poplar Streets, Philadelphia.
"There is —, and — too!" could be heard on every side. "Don't you see Miss — seated near the --?" "Óh, yes, that's Mr. B-- of the —— District!" "How are -?" The women guests had the day's events to discuss, and somewhere in the audience of 3460 were 49 Chief Operators and over 1600 other women employees, including operators, clerks and stenographers. The members of the society and guests, totaling 1800, comprised the

remainder of the telephone people. Guests came from New York, Pittsburgh, Harrisburg and Baltimore as well as from Philadelphia and near-by places.

Addresses by Officials

The actual entertainment began shortly after eight o'clock, when the society's orchestra of forty pieces rendered as an overture C. Lavaller's "Bridal Rose," and as an encore "When the Midnight Choo-Choo Leaves for Alabam."

Addresses from three to ten minutes in length followed by Messrs. W. W. Young, Traffic Superintendent, Philadelphia; J. H. Crosman, Jr., General Commercial Superintendent; H. F. Thurber, Vice-President; J. S. Wiley, General Auditor; W. T. LaRoche, General Superintendent of Plant; N. Hayward, Engineer; and L. H. Kinnard, Second Vice-President and General Manager.

All of these were introduced by Mr. P. C. Staples, Publicity Manager, acting Secretary-Treasurer of the society.

The several addresses follow:

MR. STAPLES

Guests of The Philadelphia Telephone Society: Frankly, my salutation is to our guests alone; for the brief words it is my great privilege to speak to you to-night are of good, oldfashioned welcome to the two thousand who are helping us to celebrate our tenth anniversary.

Perhaps some of you have already glanced over the program and are familiar with the history of the society, its organization and its purpose. You have observed how, in its humble beginning, a coterie of muscular young fellows set out to establish a bowling club, and how the society has, in turn, outgrown its swaddling clothes and knickerbockers,-until this year and night point prophetic finger towards a further and significant dress reform.

It has been our great pleasure to ask that you join us in the Telephone Society meeting; further, that we be permitted to dispense with all formality and round out this year of 1912-13 with a few

Digitized by (Continued on page 2)





W. J. Jennings **Publicity Department** Billiken

The Philadelphia Telephone Society

(Continued)

talks from the heads of our household, and afterwards to turn ourselves over to the tender mercies of the younger and more frolicsome members.

It is with the warmest of heart and of hand that the Telephone Society welcomes you to-night. And it is with unbounded gratification that we are allowed to play even our present small part towards the gathering together of so broad a representation of that splendid force of women and men whose efficiency is a standard and whose spirit and loyalty are a byword throughout the broad confines of their endeavor.

We are glad you are here with us, and glad, very glad, that we are here with you.

MR. YOUNG

Mr. Chairman, Ladies and Gentlemen: As you probably know, it was intended that our longtime friend, Mr. Driver, should have spoken to you this evening. That is not possible, because he has left Philadelphia to start his work in the New England Company, and I have been asked to speak to you for the Traffic Department.

We have read in THE TELEPHONE NEWS of these meetings; we have heard of the Telephone Orchestra and the Glee Club; we are now going to see whether it is all newspaper talk. We appreciate very much your having given us this opportunity, and hope by that appreciation to be invited again.

Now, to the women in the Traffic Department, I wish to say for Mr. Barrows and myself, we hope you will have a bully good time. And we shall do all in our power to have this a yearly event.

MR. CROSMAN

Ladies and Gentlemen: It is not often, in speaking to the Telephone Society, that we are able to say "Ladies and Gentlemen," so I say it with great gusto, particularly "Ladies."

When I was first told of the program for tonight's meeting, I was assured that, on account of the size of this hall and the difficulty of the majority of speakers (who don't possess voices of the power of Caruso's) to make themselves heard in this building, there would be no speaking; and therefore, when your committee asked me to appear here to-night and also assured me that no matter how hard I should try I could not make a speech that would be heard by seven rows in the house, I decided to fool them and sing to you. The more I thought of that the better I liked the idea; I thought, "If you can stand it, I can." Then I thought, "Singing in the it, I can." Metropolitan Opera House is some proposition"; and then I thought, rather than sing the song I would write it; and then I began to get nervous over that, and I remembered the fate of a friend of mine who got nervous and stuttered and stammercd. I remember he went to buy a ticket when there was a rush on, and found himself in line with about 17 people ahead of him and many people behind him. He thought, "When I get to the window I will stutter," so he wrote on a card: "Is this the proper ticket office to buy a ticket to Atlantic City? How much is the fare? Will I save anything by buying a return ticket? Do you have to change cars at North Philadelphia?"

Finally he reached the window and handed in his card. The ticket man thought, "Poor fellow! he is deaf and dumb," and wrote down:

is not the right window; go to the corner on the left. I do not know the fare, but I think you will save something by buying a round-trip ticket. I do not think you will need to change cars." The man read the answers and, appreciating the courtesy of the ticket seller, said, "Thank you very much." The ticket seller looked up, glared at him, and said: "You go to thunder!"

Young ladies, this is in many respects your particular night. The Telephone Society honors you in inviting you here, and it honors itself far more in having you here.

I am getting to be old enough to realize what a tremendous change has come into the business world in the last twenty-five years. I remember when the sight of a woman in the business part of the city was a rare sight. I remember when I was a lad, downtown in New York, where my father's office was, I seldom saw a woman. Nowadays one cannot go into an elevator of any of the downtown office buildings without having to make room for more hat-pins and hobble skirts than for men. This is good. The three great impressions made on the modern world by women are by the trained nurse, the stenographer and the telephone girl, and I name them in inverse order to their importance. I want to say, telephone girls, that the men who direct the business are proud of you. I am one of those who believe that the world has come to a realization of the important work you girls do. I don't know what the world would do without you. I want to assure you that the officers of your Company have your welfare and your prosperity at heart always. You are never forgotten in the councils of the Company; and the things which are of benefit to you are kept in mind.

I only want to add this personal word of appreciation and to wish for you all a very happy evening.

MR. THURBER

Ladies and Gentlemen: This night marks an event in my telephone experience. I have attended a great many Telephone Society meetings. I have talked with engineers about the progress of the art; I have talked with Company people about methods of Plant organization; I have consulted with the Commercial people upon the art of getting business; but this is the first time I have ever had the pleasure of talking to the people who really do, very largely, the work of the telephone business, as the public conceives it.

The public point of view, as I see it, is this: If you ask anyone his impressions of the telephone service, ninety per cent. of his impressions are those which the telephone girl leaves with him; there may be an odd five per cent that relates to the contract and another five per centrelating to damage to his trees and other personal grievances; but the vast majority of the impressions are produced by the telephone operator.

We say that we furnish telephone service. What is telephone service? If we look at it critically we may almost say it is a facility. It is not a product; it is not a commodity. We furnish telephone highways. Incidentally, I may say, if I could not talk to anyone in Chicago and have him hear me better than most of the audience hear me now, I should think that the Plant Department needed reorganization.

I was talking to a man the other night who mentioned the wonderfulness of the telephone. That is a subject I have heard discussed to a considerable extent, so I tried to switch him to another subject. I said: "How about the wireless telegraph? Isn't that more wonderful?" He said: "No; they put a pole up in the air and a transmitter on it and shout out to the world,

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But with the telephone you talk along a wire and the talk stays on the wire."

I don't propose to follow this up by any dissertation on telephone service or telephone engineering. I wish to say that I thank you for asking me here to-night. I appreciate the honor; and this, as a Telephone Society meeting, is a far greater meeting than I would have thought such a meeting could be.

MR. WILEY

Mr. Chairman, Ladies and Gentlemen: This is a rather peculiar position for an ordinary Accounting man to be placed in. Due to the fact that I am just recovering from a severe cold, may I ask all of you to be very quiet.

First, I want to convey to you the regards of Mr. Huntington, your Vice-President. Unfortu-

random. We must pull together, not apart; and that is the only "pull" for which the telephone world has any use. As a result, from all this diversity comes unity, comes strength.

In this service of ours we are not masters; the entire community has power over what we do in the business. That is as it should be, and we ought to recognize the fact. We must keep our house in order, take up our problems, use our power in the best way and with the best spirit. Only by doing this can we make our lives the best for those who make up the telephone army. And this means efficiency and service for those who pay for our work. Our problems are going to be settled, and settled right, by means of the harmony and coöperation we have always had and always will have. A meeting of this sort shows those qualities are still ours, and by these means

we all appreciate the honor—is to celebrate, in a fitting manner, the most successful year the society has ever had; and I cannot refrain from taking advantage of this opportunity to say that no immaterial share of the success has been due to the intelligent and untiring efforts of our President who, unfortunately, owing to illness is unable to be with us this evening, and to that great team, or, shall I say teams, known throughout the territory, Daly and Kilpatrick—Kilpatrick and Daly.

The consensus of opinion of philosophers is that the end of human endeavor is happiness; also, but this is from another class of philosophers, that true happiness can only be found in this country at this time—certain asylums and the Valhalla of the progressives excepted—in the dictionary. But, eliminating one or two degrees of the former con-



Left to Right:

Page
C. Brown

Operator
J. Gibson

Colored Man
C. L. Hull

Hebrew
J. A. Finnie

Englishman
G. G. Young

German
J. G. Boyer

Cabaret Show Philadelphia May 20, 1913

Six of the

Characters

in the

nately a business engagement kept him away from here to-night. But he is with us in spirit at least.

I congratulate you on having such a meeting. This meeting here to-night represents our Bell Telephone system; it is a great gathering of intelligent, industrious people. Together, we make a community within a greater community,—the city, the state and the nation. Ours is not a community in the sense that we all live at one place, but we are all in one service.

The telephone business does not smooth people out so they are all of one sort. Not only are we of all possible sorts, but the work itself is indefinitely detailed and different. If you will just think of the point at which your work for the telephone stops and who comes next, you will see at once what a tremendous labyrinth this work is. How can we get along? The answer is, system—coöperation; we must do things in order, not at

we will go further to make the Bell System a greater agent for advancing civilization.

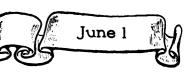
MR. LA ROCHE

Guests and Members of The Philadelphia Telephone Society: Years ago at a convention of one of the great political parties, Flanigan, a delegate from Texas, asked the chairman a famous question that caused the world to smile. Shorn of certain excess verbiage, it was: "What are we here for?" That question is also applicable to this meeting and to all other meetings of this society and its sister societies scattered throughout the territory operated by The Bell Telephone Company of Pennsylvania and its Associated Companies.

One of the objects of this meeting, which, by the way, is an epoch in the history of The Philadelphia Telephone Society by reason of so many members of the fair sex having deigned to honor the occasion with their presence,—and I am sure clusion, the fundamental object of this meeting and of all the meetings of this and other telephone societies is to give telephone service. The immediate object of these meetings is two-fold: first, to educate employees; second, to enable them to become acquainted or better acquainted. The object of educating employees is to increase their efficiency by increasing the scope of their knowledge, and of enabling them to become acquainted or better acquainted, to improve cooperation among them or team work as the baseball fanatics term it.

There are many factors on which the service problem hinges, but my time limit will only enable me briefly refer to two of them. One is the financial factor with reference to the matter of raising funds necessary to provide for plant extensions to care for growth. These extensions are constantly in progress and it is a well-known fact that the construction account of the Telephone—Company is never closed. The

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The Philadelphia Telephone Society

(Continued)

major portion of funds are secured from the investing public in exchange for stock. If the Telephone Company should be unable to reimburse its shareholders for the use of their money invested in plant the immediate outcome would be a decided slump in the market value of the stock and the stock, therefore, would cease to be an attractive investment. This condition either would prevent the Company from raising funds or enable the raising of them at a prohibitive cost. This condition, in turn, would result in a curtailment of plant extensions, and by reason of this curtailment, inadequate service. If you will bear with me for just a moment, I should like to endeavor to trace the successive steps and show you the ultimate outcome of the matter of the Company's inability to reimburse shareholders for the use of their money invested in plant. The disintegration would be substantially as follows in the order named: first, inability to raise funds; second, curtailment of plant extension; third, inadequate service; fourth, dissatisfied subscribers and dissatisfied public in general; fifth, an investigation, probably, of the Company by the public utilities commission of the state or states involved; sixth, the deluge-incident to the court appointing a receiver,—the receiver stepping in and demonstrating just how we should have run our job but didn't.

The other factor is, from my point of view, the most vital one by a wide margin. It is that of the men and women comprising the organization from its apex to the last raw recruit of an office

boy

If the organization as a unit is efficient and its heart is right, financial and operating problems will be solved as they arise and nothing can prevent that organization from rendering an adequate service. If we employees in our respective jobs will always do as did the illustrious piano player who did his best and we know that no one can do more, we will not only continue to render an adequate and an improved service year after year, but we will have done our share in assisting to establish in this favored land the utopia the sages have been dreaming about for ages.

MR. HAYWARD

Ladies and Gentlemen: Nine times a year for the last ten years there have been meetings of The Telephone Society of Philadelphia. Few of those have I failed to attend. At none of those I attended have I failed to talk, whether I was wanted or not, but this is the first time I have had the opportunity to say "Ladies and Gentlemen.'

This is the tenth anniversary of The Philadelphia Telephone Society, and although there is considerable description of that society in the program, I want to say one or two words of the growth of that society as I saw it in my intimate relations with it.

The society was founded by a group of men, then young, most of them in Mr. Spalding's and Mr. Nowell's offices. These men formed a society to get together and know each other more intimately. They found, when they got together, they wanted to discuss questions in which they were interested in connection with their jobs; and so the meetings of the society became meetings where papers on technical subjects were read and discussed. As the society grew the papers became less important and the other side, namely, the social side, more important. The society must be

must have a social side.

This is the first time we have had ladies present. Why it is we have never had them before, I do not know; but they have come to-night, and I, for one, not only expect but am sure they will come again. I expect that in the future we shall have meetings perhaps not just like this one tonight, but we shall have meetings at which papers will be read on subjects in which both the women and the men are interested and discussions by both women and men will take place.

I don't know whether anyone else agrees with me, but I think I am more fitted than anyone, except possibly Mr. Young, to speak to-night. When I was in college a friend of mine, who was more amusing than accurate, described me as a bashful boy who kept between the door and the ladies. The first day that I was with the Com-

educational, but, like most educational bodies, it late you on your guests. Ladies, as one of the Society, I thank you for coming.

MR. KINNARD

I applaud each and every one of you just as enthusiastically as you applaud me by reason of my official position. I wish I were a mirror to reflect the picture or had the power of words to convey to you the inspiration which comes to me when I look over this vast audience. I, too, congratulate the Telephone Society on having the women of the organization present,—thereby recognizing how much it owes to them. Although, as it seems to me, this occasion has been a bit late coming, I hope that its magnitude wipes out

Our patron saint in the telephone service, Mr. Union N. Bethell, has, in my hearing on one or two occasions, referred to a modest tablet in the



Two Tango Dancers in the Cabaret Show **Philadelphia** May 20, 1913

Left: Miss N. Naughton Right: Miss Regina Bachman

pany I was set to work "listening in" on the Information table; I was given a head set and tried to hear something. After half an hour of effort I heard something and looked up; to my horror I found myself in a room surrounded by ladies, with no means of escape. But I had to overcome my bashfulness, and, for the next five years of my service, I worked with the operating force of Philadelphia. I owe much to those five years. I can say there is no better lesson I have learned, no experience more valuable, than the experience of working over problems with and consulting with Miss Cardwell, Miss May Smith, and numerous others of the Chief Operators who were then Supervisors, whom I met this afternoon and with whom I had a splendid time discussing old problems.

I thank you very much for listening to me. Gentlemen of the Telephone Society, I congratu-

corner of St. Paul's Cathedral, London, near the resting place of Sir Christopher Wren, the architect of that magnificent structure. This tablet bears an inscription like this: "If you demand Sir Christopher's monument, look about you."

I say, if you demand a picture of The Bell Telephone Company in these parts, "look about you." Your Telephone Company is not an intangible thing, is not a bundle of musty stocks and bonds stored in damp vaults and strong-boxes, distributed among a favored few. You and you and you are the Telephone Company—I mean it in every transaction you have for the Company. I was told that what the women of the Telephone Company wanted to-night was not to be flattered and "jollied," but that they desired to be talked to in the same way as are the men who come to the regular meetings; that they don't object to the same music we all hear when we attend the society—they want the truth.

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I want to tell you, Miss Operator, that when a subscriber calls for a number and you answer courteously, promptly, and put that connection through, you are the Telephone Company, the whole Company in that transaction. And when you make a favorable impression, your Company makes a favorable impression; though, unfortunately, the reverse is sometimes true.

This is equally true of you, Miss Bookkeeper. If for any cause whatever an incorrect bill goes out, as one sometimes does-and you know it's a rather delicate performance at best to collect money-you, Miss Bookkeeper, are responsible should that subscriber feel that we are treating him unjustly. You, then, are the Company.

It is equally true, Miss Stenographer, when, through haste or neglect of punctuation and spelling, or if your boss cannot spell or punctuate or is too busy to correct mistakes, and a poorly prepared letter goes out—that you are the Company.

I am glad to say that in the vast majority of cases-10,000 to 1-the work that is done is well done. But, unfortunately, the one bad piece of work sometimes outweighs the 10,000 good ones. I would have you appreciate that, in all of your dealings with the public, you are the Company; you are responsible.

I want to analyze very briefly, on the other hand, the public, the public as individuals. As such they have just about as much selfishness and crankiness in their make-up as you and I have. Obviously, they are just about as we are; what they want is what we would demand under the same circumstances. And I believe that the public can be pleased if we will reach an under standing of their needs and try to meet those needs.

Five hundred years before the Christian Era Confucius was influenced by the belief that all men are born good and that only a good example was necessary to bring this out. His further teaching was the negative of what we know as the Golden Rule-that we should not do unto others what we would not have them do unto us under the same circumstances. It seems to me that this is just about our problem to-day.

You wished me to be serious and I have been serious. I want you to know that the work you are doing in the Telephone Company is just as important work as the men are doing, and that you have a mighty responsibility. I believe heartily and sincerely that the service the women are rendering in this territory is just as good as anything in any other part of the country, and that means just as good as any in the world. I would not infer that it cannot be made better; and the only hope to make it better is with you. I want the women to appreciate their responsibility and do their part.

We are now fifteen minutes behind the programme and I am just as anxious as you are to know what is being prepared behind the curtain. I thank you, one and all. I am very glad to see you and hope you will have just as good a time as I know I am going to have.

Novel Sketches

The evening's fun, which was slightly behind in schedule by this time, was made up by combining the orchestra selection, "Chocolate Soldier," with the next part of the program—crayon sketches by Mr. G. E. Gable, of the Publicity Department. To enable all to see, an easel was built and finished in Mission style, large enough to support paper eight feet wide by twelve deep. It was constructed with wooden pegs and dowels so that removal might be easily made without the use of tools. The roll of paper, weighing 375 pounds, was wider than any other ever manu-

factured by the Dill & Collins Company at the Kensington (Philadelphia) mills. Mr. Gable hastily sketched faces of Messrs. W. W. Young and R. L. Barrows and of Miss M. D. Cardwell. Unfortunately, in rolling the third drawing over the top, the paper tore and the character sketches had to be postponed until the paper could be stretched again over the top roller. In the meantime the orchestra rendered "Boy Scouts of America" and "Blue Bells of Scotland."

Cabaret Show

Then began the event par excellence of the evening, the celebrated Cabaret Show, in which more telephone performers distinguished themselves than may be crowded into a typical streetcar during rush hours. The Bell Telephone café would compare favorably with any celebrated gathering-place of its kind. Groups of young men and women sat chatting at gaily decorated tables, and here and there were tall groups of richly colored electric candelabra. Maids and waiters, typically attired, skitted in and out serving the cabaret patrons. Suddenly six of the attractive maids and as many nimble-footed male waiters grouped themselves in the center and led with a dance that was characterized by the Public Ledger as the "real thing." To the tune of "On the Mississippi" it was gracefully done in true musical comedy style. Accordion-plaited dresses were a positive necessity during that care-free dance, and thoroughly up to standard was every part of it. An encore was demanded to this as well as to all of the evening's other events.

Musical Prodigy

Mr. Silverman, who in his rational moments supervises certain phases of Plant Accounting, then demonstrated that he can musicize anything if given even half a chance. He started with an ocorina, a small clay instrument that resembles a On this he rendered "When the sweet potato. Midnight Choo-Choo Leaves for Alabam." musical rattle-a very scarce instrument-next This resembles about engaged his attention. twenty-five hand cranks from magneto telephones -all mounted on a table. By sudden turns on these ringers he was deft enough to turn out "Old Black Joe." As a third entertainer he As a third entertainer he used a genuine Chinese one-stringed fiddle and filled the large auditorium with strains of "Silver Threads Among the Gold." We are told that the subject was chosen quite inadvisedly. "Glow Worm" was next drawn somewhere from among 5000 or more perpendicular aluminum pipes known as organ chimes. Not content with all of this, Mr. Silverman rendered on a banjo "Take Me to That Suwanee Shore." He'd be popular there as here, for he played it in a way that proved it.

Even hand bells were not beyond the performer's knowledge, for "Massa's in de Cold, Cold Ground" sounded like the Southland on them. With a group of maple bars mounted on metal, known as a xylophone, Mr. Silverman won everybody's favor by a medley of national airs, including "Marching Through Georgia," Maryland," "Dixie," "Star-Spangled Banner" and Yankee Doodle."

A flute, a mandolin and a violin would have been used, but the management of the great and wonderful show thought that not all good things should be displayed to the first audience. The performer was "hooked" and the society's chorus of twenty-five sang "The Rhenish Huntsman" and "The Rosary.

Unique Operating

During all of this performance, and, in fact, from the rise of the curtain, the cabaretists had

been astounded at the performances of a most insolent public telephone operator seated at the left of the stage. There a one-position switchboard and a two-compartment stall with telephones had been placed evidently for public use. The operator, J. Gibson—who from "his" Traffic duties, might be expected to know better-sat in a tilting chair reading a novel, visible to the whole audience, entitled "Love," by Adebrobins. A puff-box was in constant use until the operator's nose and the immediate vicinity looked like a flower mill blown up by a Suffer-yet. To continue the pretty simile, her rows of ivories, that never ceased munching spearmint, looked like the grinders in that mill.

"Boy, page Mr. Kelly!" said she in no gentle tones, after a response that some operators criticised as "a 48-second answer."

Lumberingly Charles Brown, done up in a beautiful green hotel page outfit, began to page "Miste' Kell-e! Miste' Kell-e!" Later he performed the same service quite grudgingly for Miste' Hons, Miste' Barrows and others of note. Seldom, however, did his efforts meet with suc-

The operator took it all with the restful, devilmay-care spirit that is so much described mainly in the humor columns of papers and magazines. Provisions for her comfort—evidently of her own instigation-were more prominent than any display of features which make for good service. If there are any Traffic rules and regulations which she did not repeatedly fracture and utterly "bust," it was because no occasion arose. All in all, she was an operator that would gladden the heart of the opposition salesman by providing numerous prospects.

Often but never successfully Miste' Kell-e was paged, but he refused to be found. Later, a parody on the familiar song urging a search for the distinguished gentleman was well sung by each separately of a group of four-German, Hebrew, Englishman and the page. The operator sang in the chorus but did not venture her voice, not, however, because she wished to hear the fire-gongs attached to the switchboard when a call came in.

Fancy Dancing

When the Misses Regina Bachman and N. Naughton danced a fancy tango with Messrs. J. M. Brown, Jr., and Watkins Benerman, a former Mask and Wig performer, the operator discontinued all semblance of work and stood nearer the dancers. This was a remarkably clever exhibition of steps, twists and evolutions that closely resembled the professional work of Maurice and Florence Walton-the leading tangoists who perform in New York cafés for several hundred dollars a week. Among the steps exhibited were the fish (circular) trot and the grapevine walk. The other cabaret performers as well as the audience were quite intent on the graceful steps and generally catchy appearance of the dancers. One of the papers said they exhibited a tango "that was a tango!"

At one time, when the patrol gong on the switchboard announced a call, the operator condescended to "cut in" and was in such a hurry to return to her book that she rang in the patron's ear. When he called her attention to this inadvertency, she shouted quite brusquely, "Excuse it, will you?" and throughout the audience a thunder of laughter arose.

The Englishman, Frenchman, German, Hebrew and page made hundreds forget their troubles by a veritable string of awkward situations and typical expressions. One patron, in using the wall set mounted in the stall near the switchboard,

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became so excited that he pulled the complete instrument off the oak support and, carrying it to the middle of the stage, dropped it in disgust.

"You haf bulled de delephone off de vall," said the German. "De delephone ees now tead."

Repairing the Telephone

While they condoned this disastrous circumstance, a repairman arrived fully equipped, as the contents of his diminutive tin trunk showed. His outfit contained, among many other things, a saw, a bolt of cheesecloth, hammers, chisels, nails, tin, and everything that Robinson Crusoe found on his island and the wrecked ship. Rapid left-handed work, during which no thought was given to noise or dust, enabled the skillful repairman seated on the floor to announce that he had the thing fixed. Suddenly it followed the interior wiring-from which, fortunately, the patron had not severed it-to its original place in the stall and remained in position. The repairman hastened to explain that that was the way he fixed telephones. They needed no one to carry them to their proper locations.

Mr. C. L. Hull, a second tenor in the society's chorus, who was gaudily togged as a "cullud man of high degree," sang Day and Furth's touching song, "It Was Me." Then a most impressive chorus of sixty-two women—reaching the entire width of the stage and several rows deep—sang Elgar's "Woo Thou Sweet Music" ("Salut d'Amour"), and to deafening applause from all parts of the house rendered "Humoresque" ("Suwanee River") with violin obligato. This part of the evening's performance aroused a great deal of interest, not only from local representatives in the audience, but among those present from other cities. In one of the grand tier boxes one was overheard to say that there were voices in that group which, if cultivated, would doubtless win professional recognition.

Billiken Arrives

Suddenly the Hebrew decided to invest in a call and, in attempting to talk and gesture simultaneously, broke the cord of his receiver. An attempt was made, at once, with a saw to repair the loss, and without notice the switchboard opened, disclosing Mr. W. J. Jennings—another former Mask and Wig performer—as Billiken, the ever popular. The god of things as they ought to be, in most characteristic outfit that defies description, danced for several minutes and was encored so decidedly that he returned and continued the entertainment.

During these loosely hung and wrong-side-before capers, an absent patron tried in vain to get
the operator's attention, but all he elicited was—
"Wha—?" "Hun"? At one time the operator
discovered something of interest at the left of
the telephone stalls. With a "supervisor's cord"
that would reach nearly anywhere except the circus, she promptly went over to view the excitement, and returned at her leisure. In removing
plugs from the jacks she reached for the parts
of the cords nearest to her, and yanked them with
a snap that would do justice to a country schoolmarm. Without interrupting her reading, a onehanded throw put them in place ready for other
apparently troublesome callers.

Genuinely Good Singing

"Because" and Bartlett's "Dream" were very enjoyable rendered by Mr. Walter Cunningham, and the applause was most appreciative.

The combined choruses of women and men displayed marvelous feeling and training in con-

tributing "Tantum Ergo" ("Sweet the Moments") from Donizetti's "Lucia."

At this stage the large roll of paper on which three other sketches were to be drawn by Mr. Gable had been arranged over the roller in its proper position. While the orchestra played a selection from the "Dollar Princess" he hastily sketched the characteristic features of Messrs. L. H. Kinnard, F. H. Bethell and T. N. Vail. Applause greeted each finished production. "They look just like they were real, don't they?" said one operator to her companions.

When the curtain was lowered for the last time the orchestra played the "Conservatore March" and the "largest ever" telephone audience filed out in groups for their homes. They could not, however, forget the efforts of the committees that provided such an elaborate and so varied a program of three hours' fun. The size of the Telephone Directory (newspaper-size), the scanning of it with the aid of a portable electric light, the unheard-of doings of the operator, page, guests and cabaret patrons will often be recalled by those who were so remarkably entertained.

How Results Were Obtained

All in all, the work done in so short a time by the performers and by the six committees was most surprising even to the originators of the plan. It was appreciated by the committees that much—perhaps the majority—of the practicing, planning and actual completion of the work would, of necessity, be done out of hours and at somewhat of personal inconvenience. To seat so large an audience alone required careful planning and thorough understanding of the limits of the house. The plan adopted was to divide the entire seating space into sections and to assign a block of seats in each group to the main guests—the women numbering over 1600. The remainder of the seats were allotted as opportunity afforded to the men of the various departments. The newspaper representatives were there, including three women reporters, and their accounts were varied and decidedly complimentary.

The training of the performers, the generous exhibition of good-nature from the first practice through the dress rehearsal to the notable evening, and the actual performances of the entertainers, were all indicative of our type of workers. What was repeatedly mentioned as the first society meeting attended by the women employees proved by far the most enjoyable and most novel of any of the society's many gatherings.

"What impressed me most," said one man, "was the fact that everything was telephone from stage to entrance, and that we have a crowd more talented than any of us ever guessed."

"I thought most of the speed of the committees," said another member, "and of the really fine trained voices that entertained us so royally."

Next year, or any year, it will require a truly comprehensive undertaking to outshine the May 20 meeting of The Philadelphia Telephone Society.

The committees, cabaret and society orchestras and men and women's choruses were as follows:

Advisory—Messrs. F. I. Daly, J. H. Hons, P. C. Staples, W. W. Young and R. L. Barrows; J. L. Kilpatrick, chairman.

Arrangements, Stage and Program—Messrs. R. C. Mason, C. O'D. Lee, H. G. Mount, E. J. Speh and J. H. Carroll; G. E. Gable, chairman.

Entertainment—Misses S. A. Brennan, M. H. Kennedy and M. N. Kimmey, Messrs. F. B. Evans and A. Silverman; J. M. Brown, Jr., chairman.

Chorus and Vocal-Misses E. A. Stauffer,

M. E. Dunne, and A. T. Steele, Messrs. T. H. Griest and A. W. Lincoln; G. G. Young, chairman.

Orchestra—Messrs. J. F. Shannon and L. C. Gainor; W. A. Eipper, chairman.

Tickets and Scating—Misses F. T. Toomey, A. C. Sullivan and I. M. Weeks, Messrs, J. Gibson and J. M. Repplier; P. C. Kramer, chairman.

Cabaret Orchestra—Messrs. Staples, Silverman and Hull.

Telephone Society Orchestra—Messrs. William Achuff, William L. Bicking, G. Bolton, F. G. Brewster, G. B. Chase, Howard A. Clarey, Charles Ebenbach, J. N. Ellis, H. E. Garrison, L. M. Goucher, J. L. Green, H. L. Hendler, Harry L. Hendler, Albert M. Hersch, Geo. W. Hoffmann, J. A. Jervis, J. A. Joyner, Chas. C. Lee, Thomas McNamara, Geo. M. Miller, Jr., T. H. Peoples, James Reckie, F. D. Reynolds, G. W. Roberts, Thos. G. Rowand, Spencer H. Sauer, A. B. Scheffey, W. A. Scheible, J. F. Shannon, W. Showalter, Wm. Thomas. Jr., J. R. Valliant, H. L. White and W. Wilfong.

Chorus of Women—Sopranos: Misses Sophia Boerckel, Anne Bolton, Emma Bradley, Elsie M. Buckley, Mary D. Cardwell, Margaret Coogan, Anna M. Dinsmore, Anna G. Dougherty, Mary E. Dunne, Blanche Emerick, Mary C. Gallagher, Jennie Harley, Helen Hefferman, Florence Hess. Florence A. Hoskins, Elizabeth F. Howe, Louise Kennedy, Edith Lawrinson, Anna E. McGurk, M. E. McShaffrey, Isabel Mainger, Rosaline Moscony, Ruth M. Nagle, Florence O'Neill, Margaret Orr, Johannah Robinson, Beatrice Ryan, Elizabeth Shelmire, Florence Sims, Martha Spinney, E. A. Stauffer, Anna P. Steele, Miss Stein, Anna G. Tully, Helen Turner, Helen Winnals, Mary M. Wylie and Frances R. Zingol.

Altos: Misses Mary V. Barlow, Elsie A. Betz, Emily M. Bickley, Agnes Carlson, Iona Ferguson. Effie Flad, Ila M. Fluke, Blanche I. Graf, Maude Holcombe, Mae B. Hunter, Josephine Kenworthy, Mary R. McQuade, Mae C. Miller, Elizabeth C. Morgan, Lillian B. Norsk, Edith V. Reagle, Belle M. Riday, Esther M. Scully, Ruby Tennett. Martha C. Vice, Agnes L. Walsh, Mildred Walter and Elizabeth R. Wunderle.

Philadelphia Telephone Society Chorus—Tenors: Messrs. J. H. Abdill, Joseph S. Foster, H. W. Hill, H. E. Hoffman, Harry Miller, Chas. A. Smith and John A. Finnie.

Second Tenors: Messrs. J. R. Bonachea, W. Robert Cunningham, C. Lewis Hull, O. W. Turnbull, Chas. M. Wiest and George G. Young.

Baritones: Messrs. B. R. Gause, C. H. Huch. A. W. Lincoln, H. Powell Patchett, Philip C. Ragotzky and David J. Spratt.

Bassos: Messrs. J. C. Alexander, H. K. Ambler, Chas. J. Brown, T. H. Griest, David Pierson and Wm. J. Stewart.

Employee's Gratitude

A Camden District, N. J., operator, who had

been ill, wrote:

"Having been confined to my home the past several weeks by illness, during which time I was kindly remembered by having my usual pay con-

kindly remembered by having my usual pay continued in consequence of the Company's recently adopted 'Employees' Pension, Disability and Insurance Plan,' I am taking this way of expressing my personal thanks to whom it is due. The breezy little Telephone News came to

my bedside several times, for which I am also saying thank you.

Sincerely,



The Bell Telephone Company of Pennsylvania The Central District Telephone Company The Delaware & Atlantic Telegraph & Telephone Co The Diamond State Telephone Company

F. H. BETHELL. President
H. F. THURBER, Vice-President
L. H. KINNARD, Second Vice-President and General Manager
W. S. PEIRSOL, Sec'y and Treas.
R. M. FERRIS, Chief Engineer
J. L. CROMAN, Jr., Cen'l Com'l Sup't
W. T. LA ROCHE, Gen'l Sup't of Traffic
C. LYNCH, Gen'l Sup't of Traffic
S. H. MOURE, Counsel
E. C. WILEY, Auditor
E. C. WILEY, Auditor

Managing Editor, E. H. HAVENS, 17th and Filbert Streets, Philadelphia, to whom all communications should be addressed

SUBSCRIPTION PRICE:

NO CHARGE \$1.50 per annum To employees of the above Companies
To employees of OTHER BELL COMPANIES,
payable in advance

Vol. IX

JUNE 1, 1913

No. 11

Fellowship—The Telephone Societies

66 OU know, he's a bully chap," remarked a Plant man the other day, "though it's taken me a long time to realize it.'

He was speaking of another man next to whom he had been working for months, and he said it in a plainly surprised tone of voice. Months of close association in a business way had failed to teach him what sort of fellow this co-worker was.

Such is often the case. We are too apt to don business manners with our business clothes and withdraw into our personality shells, so to speak. We don't really become acquainted with our fellowworker, our assistant or our boss. We know, perhaps, that he is a bully worker, that he doesn't shirk, that he signs his name with a flourish or some-such everyday characteristic. But, too often, that is all.

Let's for one evening sit next to this man at a meeting of the Telephone Society; let's hobnob with him about "shop," or the way Eddie Collins or Hans Wagner is hitting; let's laugh over a joke together and smoke our cigars together,and lo! we have discovered a new man, one whom we never knew existed. What this new fellowship means we scarcely realize, but it means much indeed to all of

At this time when The Philadelphia Telephone Society has just completed the celebration of its tenth anniversary in so thoroughly enjoyable a manner, and when at Harrisburg, Pittsburgh and other of our big cities the several societies have set a new high-water mark, we may well look back on and analyze the many pleasant and helpful meetings of the year.

What is the great factor which is contributing towards the enthusiastic membership in these societies? Perhaps, after

all, it is the spirit of fellowship, the general appreciation of a common spirit with our fellows, who, we learn when the spell of the actual business day is broken, have the same joys and troubles that we have. And with that comes the feeling of a joint interest in our job. These co-workers whom we have never known well before are equal partners with us in the business. Our thoughts, interests and work have everything in common.

True, the papers, talks and discussions must form the real justification for the continuance of our societies, but what is of more importance to you and me than the great human fact which is brought out: that the chap who works with us is a bully good fellow, after all.

An Old Thought Always New

THE Western Electric News brought up a point not long ago which is of Remarks were decided interest. made about it by some of our officers, and for that reason it is thought best to call attention here.

Quoting from that paper:

"The difference between a good stenographer and a first-class one is very often just a matter of 'finish.' But there's the rub! Is there anything more difficult, or requiring more tact, than the pointing out of little inaccuracies of expression either in correspondence or in conversation? Then again, who is perfect? Is there any one of us who has not realized with horror that for years she has been unconsciously using wrong expression? One day we hear a scornful reference made to a weakness in someone else and it comes upon us in a flash that we ourselves are guilty of the same fault! But we're cured

"How many of us, from pure force of habit, write 'We enclose herewith'? Now, a moment's thought will show us that the 'herewith' is quite unnecessary.

Don't use phrases such as 'beg to acknowledge,' 'beg to inquire,' 'beg to advise,' etc. Please don't beg at all.

"And never, never, use the word 'same,' as 'in regard to same.'

"Don't write 'would say.' Be brave and say it.

"'Awaiting your reply, beg to remain' is a weak platitude; you will have to 'await' in any case, and the chances are that you will remain.

"Simply say 'Yours truly'; drop the 'very.'

He Acts Quickly

N our Company two men were talking about a "practice that should be enforced." It would not result in any It would not result in any startling changes but would help to brighten the public's view of one phase of the business. The need was noticed some time ago, and steps were then taken to correct unfavorable impressions that some general users were likely to receive.

A was familiar with the existing routine, but was suggesting another method of impressing its importance. His associate said that there are enough good "laws" now to cover the point. Another, who happened to enter, was questioned and said, "I've just taken up that matter with a fellow who's always 'on the job.' He is the kind that does things; he acts quickly. I have no doubt that the routine will be enforced, and in a way that will correct any defects at once. You can trust the man who has this in hand to get things done."

That's the very reputation that put some men at the tops of their respective companies.

Selection of Assistants

QUPERVISORS, regardless of their titles, are or should be judged not only by the grade of work that they turn out but by the type of assistants that they select. We sometimes think that is one phase of their usually varied duties which receives too little consideration. One judges their results as excellent or merely satisfactory, but fails to compare them with what they might be if those responsible for the details had been more carefully selected.

Promptness and general efficiency are required. Those are the criteria which determine, above all, whether or not a supervisor measures up to expectations. But those qualities may depend more on the assistants than on the supervisor.

It is the supervisor's duty to give special attention to the selection of assistants, not only to have them do their work well, but to insure the reflection of his or her own ideas and principles.

To be able to discern quickly and surely the difference between the worker and the shifter, to judge hastily but fairly, to avoid the drifter and to secure the services of the thinker ready to act,—these are qualities which a supervisor should emulate.

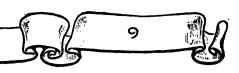
. And sometimes they are apparently more difficult than the regular duties involved in the job.

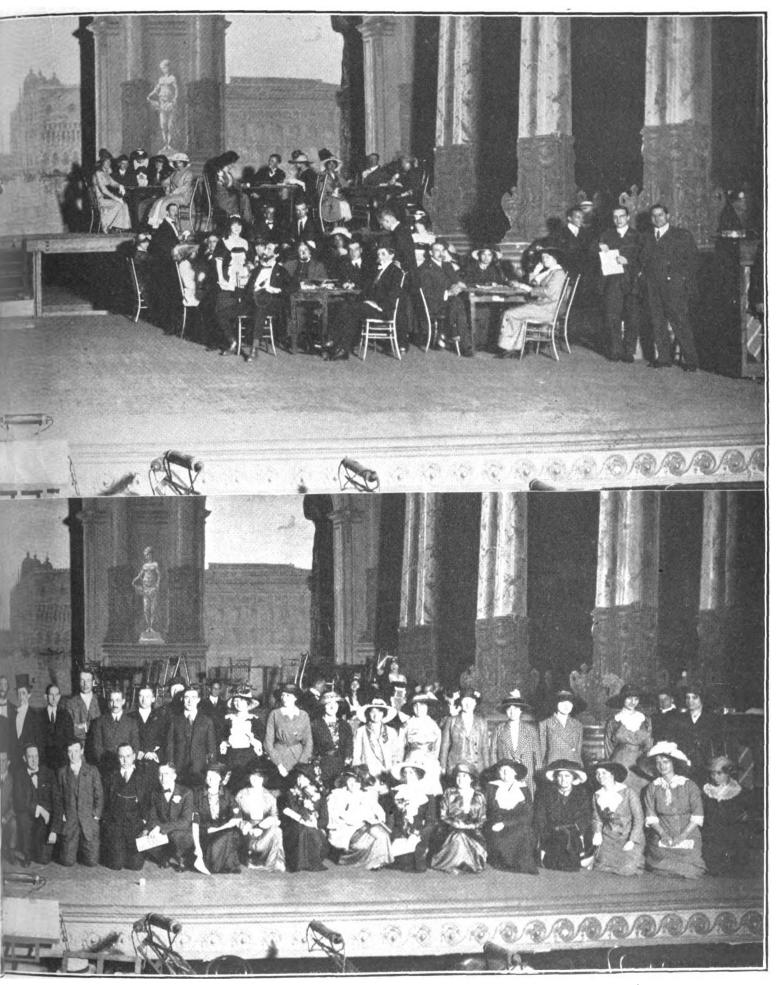






Rehearsals of The Philadelphia Telephone Society's Tenth Anni The upper view shows the Cabaret performers including the operator and the character entertains



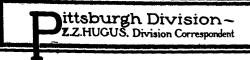


versary Celebration, Metropolitan Opera House, May 20, 1913

pa, and the lower group includes the two choruses as well as the cast (For names see page 6)



June 1



Butler District

One of the Plant employees in the Butler Sub-District has been given credit by the Commercial Department with having secured on an average eight applications each month since the first of the year. Genuine service, that!

Some time ago a salesman in the Butler Sub-District decided that St. Joe, five miles south of Chicora, Pa., should be on the Bell map. As the town proper is made up of a B. & O. Railroad stop and three residences, he had to depend on the surrounding district to get the revenue to justify the expense of a new circuit and some attachments to foreign poles.

He was successful in obtaining 13 applications for service, and a promise from some of the applicants that they would furnish and build approximately two miles of branch pole line neces-

sary to make the installations.

After the Plant estimate and approval had been obtained, the prospective subscribers, who were to furnish the branch lines, were asked to proceed with their part of the work. After some delay, there will soon be 13 new multiparty line subscribers added to the Chicora exchange.

The following letter was received by the Wire Chief of the New Kensington Sub-District: "Mr. J. W. Alexandra,

New Kensington, Pa.:

I. as a councilman of Avonmore borough, wish to say that the two men whom you sent up here to trim the trees in the way of your wires have done their work very satisfactorily, and given perfect satisfaction to all the parties concerned. The people were very reticent about having their trees trimmed. The two men conducted themselves as gentlemen, and we are pleased in the manner they did their work.'

Mr. J. P. Copeland, a subscriber for five Bell stations at New Kensington and Tarentum, recently returned from a trip to the Pacific Coast. While away he used Bell service in many cities which he visited. At Chicago he wished to talk with his wife, and asked the operator if there was any possible way of "getting a line" to New

Kensington. Upon being assured by the operator that there was, he gave her the desired number. In eight minutes' time he was talking with his wife at New Kensington. He afterward described the service as perfect. Mr. Copeland complimented the Bell Companies for the universally good service, not only on this call, but on all the calls which he had occasion to use on his trip.

Erie District

A patron at one of our exchanges, in making a long-distance call, deposited his money in the coin-box with the receiver on the hook. being told by the operator that he should have deposited the money with the receiver off the hook, he replied that as he possessed only one arm it was necessary for him to hang up the receiver before depositing the coin. Another method was then made clear to him.

The baseball team composed of employees of our Company at Erie, Pa., has won all three games played thus far this season—two with the local Shriners' Club and one with a team composed of commercial travelers.

One of our subscribers recently requested that his number be changed from 229. This change was requested for the reason that he had been called, as he said, in error by the long-distance operator. Investigation proved that, in an instance or two, the subscribers upon being asked by the long-distance operator the number of the telephone from which the call was originated would look on the transmitter and say No. 229, the maker's number on the transmitters.

Johnstown District

On Tuesday, May 13, the local officials piloted 38 high school boys and girls through the Greensburg (Pa.) exchange building. These pupils, three of whom were girls, comprise the physics class of the high school. They were deeply interested in all the details explained, and made a thorough inspection of the plant from the storage batteries to operating room.

The trip was suggested to the principal of the school by Local Manager F. W. Morgan. The principal cheerfully gave his consent to the project. The other classes of the high school will be shown through the exchange at an early date. Greensburg High School has several hundred pupils.

Says the Greensburg Tribune of May 13:-"The operating room received the most attention. Here every detail concerning the receiving and sending of messages was gone over and the electrical connection was explained. The excursionists also visited the retiring rooms and locker rooms of the employees, showing how well the Company cares for the people on its pay-roll."

The Greensburg business office received a number of complaints about noisy lines in the business district of the town. Upon investigation by the local Wire Chief it was discovered that a wireless plant operated by a chauffeurs' club had a "bad" ground. While the members operated that plant. our lines near their rooms all carried a hissing screech that practically cut off telephone transmission. The matter has been adjusted and no more trouble has appeared from that source.

In the May 6 issue of the Latrobe (Pa.) Bulletin was the following:

"Proving That the Telephone is Quicker Even Than the Automobile

"The Chief was out with his stop-watch again this morning. Result: -- Automobile Company, fined \$10 and costs for speeding on South Ligonier Street.

The Chief took up his position behind a bulky telephone pole on South Ligonier Street, watch in hand, and waited for what might happen.

Whiz! There flashed by him an automobile, headed toward town.

It was going too fast for the Chief to get the number, but, unbaffled, he darted into a ne boring store and seized the telephone rec... from its hook.

'Give me 13!' he cried.

Now 13 is the number of the telephone City Hall. City Hall officer Gillis was a ving when the bell tingled, but he laid down the razor and hurried to the telephone.

'There's an automobile coming through. Nah

This is the Chief talking.'

That was the message he got, and without stopping to remove the traces of lather from his face, the officer gave a hitch to his drooping suspenders, and sallied forth to 'nab' it.

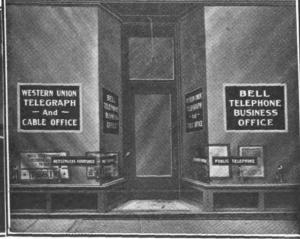
He did; and the hearing followed forthwith

in Justice White's office.

You got me, all right,' said Mr. -I should like to know where the Chief was hiding I never saw him.'

The fine was \$10 and costs."



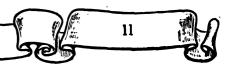




Three Views of McKeesport, Pa., Business Office-J. S. Finley, Local Manager

Ruel Jayne, Albert Penner, Ella R. McElwee and Margaret Dalton





At Johnstown a few days ago a local Chinaman presented a slip which bore the number 4622 and some Chinese characters. It looked more like a laundry check than anything else. As he presented the slip he said, "Him name, him number, you get 'im' —pointing to the slip. Our Traffic Inspector made a guess that the caller wanted Pittsburgh and so tried Grant 4622. The call was completed in a very few minutes.

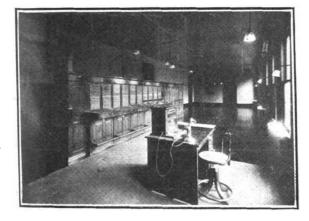
A man called at Johnstown and said he would —— at some town below like to get T. M. Pittsburgh, but didn't know the name of the town. He went away and said he would try to get better information. Returning in a few minutes, he advised that the man was located at some town between Johnstown and Greensburg. Latrobe was tried first and the man was promptly located there. The call was completed at once.

Uniontown District

Uniontown, Pa., was visited a week ago by a traveling circus. A great crowd from the country districts appeared on the streets and at the places of business, and a number of visitors were shown through the local central office. The workings of the switchboard and the duties of the operators were explained to them.

As the hour grew near for the parade, a great many inquiries were received by the operators as to what time it would start, etc. Among them, an anxious voice asked for "Information." After being connected, she asked if "Information" knew

t they called the wagon that always goes back ot the parade. "Information" very courteously asked her if she meant the calliope. That helped the aller out of a quandary, for she said, "Yes, that it.



Kane, Pa., Switchboard before Cut-Over

The Uniontown Cashier recently had returned to her a statement of telephone rental. The subscriber made known on the back of the slip his reasons for wishing the telephone disconnected. The note read as follows:

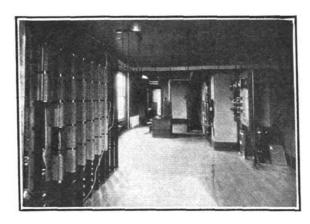
'My wife has left Me and I dont Nead a fone. Send a man and tak it out.'

[Evidently he had no need to talk after that!]

A business visitor to the town of Connellsville, Pa., used one of our public telephones before leaving for the station. After being comfortably seated on the train, he drew some loose change from his pocket to make a purchase. To his amazement, he found that he had but seven cents on his person. He immediately left the train and made a wild dash for the business office. There he advised the Local Agent that in error

he had placed a five-dollar gold piece in the automatic instead of a five-cent piece. The agent examined the automatic and returned the coin to the owner, but the train had gone.

MISS HEPPLEWHITE.



Kane, Pa. Wire Chief's Office

Pittsburgh Accounting Changes

Centralization of Accounting Work for Business of Joint Telephone-Telegraph Offices-Pittsburgh Division

By J. H. Boeggeman, Division Auditor of Receipts, Pittsburgh

Beginning May 1, 1913, all accounting work, including the preparation of various detail reports in connection with the telegraph business handled at Class 10-A joint telephone-telegraph offices in the Pittsburgh Division, was discontinued in the local Commercial offices and was centralized in the Accounting Department at Pittsburgh.

The Pittsburgh Division is comparatively well developed in regard to its number of Class 10-A joint offices, there being twenty-two such offices at the present time. These offices handle approximately 45,000 messages of various classes each month, and of this number the Parkersburg, W Va., office handles about 10,000.

All the telegrams, both sent and received, messenger delivery records, errand service forms, charge tickets, etc., are forwarded each day to the Revenue Accounting center, where the necessary records are summarized on the various forms. At the close of the month this information is used in preparing the various monthly reports and settlements with the Western Union Telegraph Company.

This change is a step which has been hailed with much delight by the Commercial Department, as it removes from the scattered units a considerable amount of accounting work, much of which had to be done during a limited period immediately after the close of each month.

One of the important points in connection with this change is that the Commercial Department will be in a position to create a greater flexibility in its organization at points where joint offices are located. The time previously spent by employees on telegraph accounting work, particularly at the beginning of each month, may now be devoted to telephone commercial work. The advantage of this arrangement seems very obvious, as the peak of the load at the local Commercial offices is reached during the early part of the

This change should also prove of advantage to the Western Union Telegraph Company, as all reports covering telegraph business of joint offices will be forwarded to New York prepared in a uniform way.

Why the Estimated Cost on a Job Should Be Correct

(From The Telephone Review)

HERE is always a certain amount of controversy going on between the Plant Engineers and the Construction Men as to the amount that should be allowed for doing certain work. The Engineer invariably assumes the attitude that the Construction Man should not be concerned with the appropriation, as all that he has to do is to work. This is bigotry on the part of the Engineer and an injustice to the Construc-

The waste caused by inaccurate estimating is great. In case the Telephone Company is doing its own construction work, too liberal estimates result in expensive work, it being only required that the Construction Man keep within the estimate; there is a tendency to lay out the work with that object in view, with the belief that good results have been achieved if it is successfully accomplished, no matter how large the estimate may have been. At one time I had a gang on a job of stringing a new toll circuit and doing some repairs to the pole line at the same time, all of which was done for 70 per cent. of the estimated cost, and it was done well. The foreman was highly elated over his success, and said that he had the "workingest gang that ever came down the pike." He actually believed that he had made a record for himself and was looking for recognition, when a study of the job showed that originally it had been overestimated.

On the other hand, estimates which are much too small have a tendency to cause Construction Men to lose interest in their work, as they know that the overrunning of an estimate never results in any credit to them, no matter how cheaply the work is done. If the original plans are changed without a corresponding change in the appropriation, the Construction Man does not care what the resultant cost of the work may turn out to be. Perhaps the Construction Man does not have the right ideal in mind, which is to do the best work you can in the most economical manner; but, on the other hand, the Engineer often makes the estimate on a job what he would like to see the work done at rather than what it will actually cost. It may be a good policy to keep the cost estimate from the Superintendent of Construction entirely, but in the end the Engineer generally seeks to obtain from him the reason for any surplus or deficit.

Naturally Construction Superintendents and Foremen are guarded by the estimate, and they believe to a certain extent that the results of their work are shown by the amount of the debit or credit balance.

In the case of a contractor, it needs little argument to show the loss caused by inaccurate estimating. If the estimate is too large, he may lose the contract; if too small, he loses his profits. In the first case he often discourages construction, and in the other he cannot long exist.
O. W. McIndoo,

Engineer, Plant Dept., Syracuse.

Stationery Notes

For eight or ten copies to be made by typewriter, 8-lb. paper has been adopted. When more than ten copies are required, 12-copy onion-skin paper is to be used.

An envelope suitable for use by all Companies is being considered.

Binders are to be standardized, if practicable.

E. I. du Pont de Nemours Powder Company

Pioneer Powder-Makers of America

By Hollyday S. Meeds, Chief Clerk, Wilmington, Delaware

'N its mammoth twelve-story office building, covering a whole city block, in Wilmington, Del., the E. I. du Pont de Nemours Powder Company has its offices, and there a complete Bell telephone equipment of a four-position switchboard with 160 stations is a potent factor in the administration of the great systems of powder mills factories, machinery plants and chemical



A Rest Room in du Pont Building, Wilmington, Del.

works scattered through thirteen states. du Pont Company, the result of careful management, uniform courtesy to patrons, a strict business integrity and the growth of over a century, has perhaps as interesting a history as any industrial concern on this continent.

Pierre Samuel du Pont de Nemours, with his family, came to this country from France, their experience during the French Revolution having been an exceedingly unhappy one. One of the sons, Eleuthere Irenee du Pont, a pupil of the celebrated chemist Lavoisier, had acquired great skill in the manufacture of powder at the govern-



Executive Offices of the du Pont de Nemours Company, Wilmington, Del.

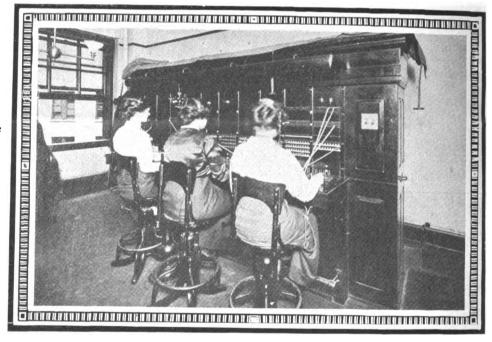
ment works at Ensone, France, where he held an important position from 1770 to 1776. A careful study of the conditions in America convinced Eleuthere that the manufacture of gunpowder in this country offered a fertile field, and his scientific proclivities and experience at Ensone served him well in building the first mill in 1802 on the banks of the Brandywine,-a stream that had been made historic during the struggle for American independence. This site in Delaware was selected in spite of the efforts of Thomas Jefferson, du Pont's friend, to persuade the powdermaker to settle in Virginia, and a similar invitation to settle in Maryland.

Early processes of making powder in this country were primitive, and there were many difficulties to be overcome. The available workmen lacked entirely the knowledge, skill and experience so essential in the manufacturing pro-

that only the purest and best materials obtainable should enter into the powder made, soon established the new concern firmly in the confidence of the public, and its success became an assured fact.

His first powder mill was followed by a second. and soon the business grew to such proportions that the little stone buildings sprang up on both sides of the Brandywine. The first buildings composed what are now known as the upper works, four miles above Wilmington. Ten years later another tract was purchased along the creek, known as the middle works, and the two developed a capacity of 25,000 pounds of powder per day. In 1846 the lower works were established, with laboratories and refinery for saltpeter, and the yards then stretched for three miles along both sides of the sleepy wooded stream.

To-day, with dynamite and smokeless powder mills in various parts of the country, the E. I. du Pont Powder Company has grown almost out of the memory of the original plant; but of all the big mills now operated in the du Pont name, none is so unique or interesting as the parent plant on the Brandywine, the old stream which is so rich in its historic reminders of our country's struggle for liberty. The illustration shows the



P. B. X. Switchboard of E. I. du Pont de Nemours Powder Company, Wilmington, Del.

cesses of a product of this character. Great trouble was encountered in securing raw materials of a sufficiently high grade in large quantities.

The founder of the business, however, possessed qualifications which gradually swept all obstacles from the path of the infant industry. He knew how to double-refine saltpeter and exercised extreme care in the selection of charcoal. Also his exact scientific knowledge of explosives, his extensive experience in their manufacture, his unusual ability in the selection and training of men, and his unswerving determination old mill as it now appears, the photograph from which it was made having been taken only a short time ago.

After E. I. du Pont, the successive members of the family were especially educated and trained in chemistry and the manufacture of explosives and the inventing of machinery and appliances for such purposes.

The first unusually heavy demand on the du Pont mills was made by the United States Government to supply the army and navy during the war with Great Britain in 1812. The powder with which Perry won his famous victory was



Henry du Pont



E. I. du Pont de Nemours



T. C. du Pont



Alfred du Pont Digitized by GOOGIC



Eugene du Pont



First Powder Mill in America

transported by wagon from the old mill on the Brandywine to Erie, Pa., where Commodore Perry loaded it on his vessels. In commemoration of this event the du Pont Company is planning to repeat the trip made just one century ago. The route is indicated on the map reproduced in this issue. A wagon exactly like the one used then, escorted by a squad of troopers in the uni-



Girls' Lunch Room, du Pont Building, Wilmington

form of 1812, will leave the old mill on the Brandywine about June 5 and arrive at Erie in time to take part in the centennial celebration to be held at that and other cities along the lakes.

In the development of the physical and commercial resources of the country, the laborer and capitalist have found powder and explosives a potent means at their command. In the development of coal mines, leveling hills, excavating foundations, quarrying materials for the building of every town and city, and in the construction of public works it is extensively employed, as well as in excavating canals and reservoirs and in the grading of the railroads and public highways. It has opened the way for prospecting and developing the iron, zinc, copper, silver and gold mines. It is now used everywhere for preparing ground in setting out single trees and orchards.

Anticipating a demand for a chemical compound that would prove superior to the mixture known as black powder, the du Pont Company as early as 1845 investigated and manufactured gun-cotton of a quality up to the requirements of that time, and gradually developed, perfected and in 1893 patented the smokeless powder.

In 1810 approximately \$30,000 represented the investment of the du Ponts in the manufacture of powder, while in 1910 it required nearly \$80,000,000 for the annual output of more than 300,000,000 pounds of explosives and allied products.

It is said that a life of a member of each gen-

eration of the du Pont family has been sacrificed to the hazardous business of manufacturing explosives. The family has also given to the country of its adoption soldiers, statesmen and financiers

Well may Wilmington be proud of the E. I. du Pont de Nemours Powder Company, and Delaware, that one of the greatest of American industries was given birth and fostered within her boundaries.

"Is this where you report trouble?"
"Yes."

"Well, I only wanted to report that our cat got drowned in the cistern this morning; the baby is cutting a new tooth; the cook left suddenly; we are all out of sugar and starch; the stovepipe fell down; the milkman left only a pint instead of a quart to-day; the bread won't raise; my oldest child is coming down with the measles; the plumbing in the cellar leaks; we have only



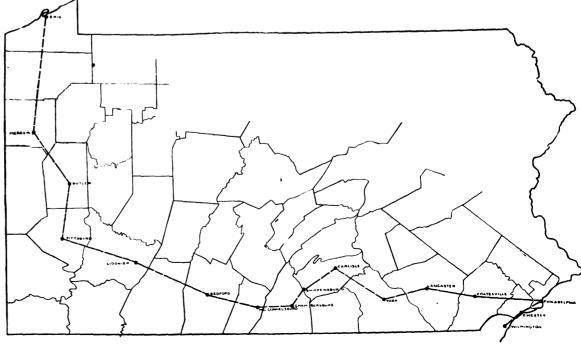


Who Will Vouch for This Trouble Call?

(From a local paper)

The West Side family had not had their telephone very long and took a great interest in it. On the outside of the telephone directory they had seen the words, "Trouble Call No. 4217." It had been a hard morning and everything had gone wrong, when the woman of the house happened to think of the telephone and called 4217 and asked:

enough coal to last through to-morrow; I ran out of paint when I got only half over the diningroom floor; the main-spring of the clock is broken; my husband's three sisters are coming to visit us to-morrow; the man has not called for the garbage for two weeks; our dog has got fleas; the looking-glass fell off the wall to-day and broke all to pieces, and I think my husband is taking considerable notice of a widow that lives next door. That's all to-day, and if anything else happens I'll call you up later."



Route from Wilmington, Del., to Erie, Pa., Taken by Powder Wagons

Trenton District

Foreman received word that a 30-pair cable in

Princeton was in trouble. After locating the

cablemen, it required but two and one-half hours

to load the truck, travel fifteen miles, replace 515

feet of 30-pair cable, and make all necessary tests.

West Chester District Reproduced on page 16 is a view of "The

Washingtonian Minstrels," held in Coatesville,

Pa., May 8 and 9, for the benefit of the Wash-

ington Fire Company of that place. In every way

the show was a great success, and was especially

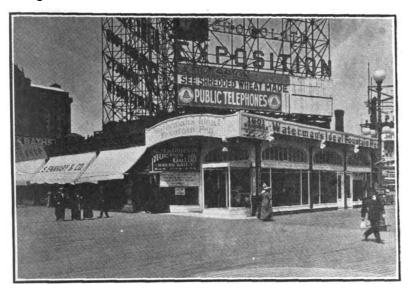
On Sunday, April 27, the Trenton District

June 1



Atlantic District

The accompanying reproduction shows the metal sign originally displayed on Young's Pier, where we had an attended public station. The sign has been placed in this location in connection with public telephones installed at the entrance of the exposition. This sign is very prominent on the Boardwalk during the day and also at night, when the numerous electric signs around it HALL. are lighted.



Public Telephone Sign on the Boardwalk at the Entrance to Young's Pier Atlantic City, N. J.

GARWOOD.

Camden District

The following letter was received from a subscriber who had trouble on his line:

"My line was working after 1 P.M. to-day: a little after 2 it was out of commission; before 3 a man was here and grounded a wire and restored the service; and before 6 a new line was extended from my house to the pole. I appreciate this service and think it is due you to know it, especially as many of my communications with you are in the nature of 'kicks.'

WRIGGINS.

Norristown District

On May 12 two of our Norristown linemen, J. E. Orr and H. Freas, while eating their dinner at Centre Square, a village about five miles from Norristown, were startled by piercing screams of "Fire!" They saw a woman running excitedly down the road giving the alarm, while her husband spent fifteen minutes calling his neighbors on the Bell telephone.

Our linemen, who were seated in a carriage, immediately dashed up the road in response to the alarm and were the first to start a bucket brigade. After fighting the flames for some time, they thought they had them under control. A blaze then showed itself in the roof. With the aid of our forty-foot extension ladder (the only one to be had) the men were able to conquer the blaze.

At one time the mother came rushing wildly out of the house, screaming hysterically, "Save my boy! Won't some one save my boy? He's in the bathroom." Our lineman, Freas, tying a handkerchief around his face, rushed madly to the rescue and discovered the "boy," twenty years old, taking a bath. On being informed that the house was afire, he quickly completed his toilet and was "saved."

appreciated by the local people, as it was composed entirely of local talent.

The picture is the scene of the afterpiece, the hit of the evening. It was centered in a supposed-to-be railroad station. Our Bell booths were in evidence, with uniformed Bell operator. A Western Union ticker was also working. were sent and received via Bell telephone and Western Union; night letters were also received and delivered to incomers and outgoers.

A Blue Bell electric light globe was suspended over the booth and style "J," style "A" and Western Union signs were prominent in the scene.

Wilmington District

A great deal of interest is being shown in the suggestion slips by both the Traffic and Plant Departments in Delaware: during the month of April 16 stations and four extension bells totaling over \$400 contracted for through slips turned in by the Traffic Department, and 23 stations and extensions combined totaling nearly \$650 from the Plant Department. This is very much appreciated by the Commercial Department and while all of the slips that are turned in are not productive, we are only too glad to know such interest is being shown.

Please Remove "Dead Man"

An Atlantic, N. J., District subscriber wrote the following pointed postal card to one of our local representatives:

"Dear Sir:—I thought I would notify you of a dead man you have buried on my ground. It is in my way of plowing. I want it put out nearer the road; you have it in fifteen or twenty foot on my farming ground. I bought the house and ground this spring and worked on your Telegraph line also buried the dead men remove and oblidge,

Suggestion Slips

In April \$3852 worth of business was obtained through Atlantic Coast suggestion slips. The district totals varied from \$79 in Pottsville to \$681 in Jenkintown. Trenton came second with \$512, and Wilmington with \$465 beat Atlantic by only \$60.

Arranged according to results obtained the names of senders were: J. V. Donahue, Jenkintown, \$288; B. C. Sieber, Atlantic, \$144; B. G. Simpson, Bryn Mawr, \$126; G. A. Tarbutton, Wilmington, \$121; J. Hitchens, Burlington, \$120; I. W. Speakman, West Grove, \$114; L. F. Hoffman, Malvern, \$96; W. W. Burroughs, Trenton, \$90; J. A. Larmore, West Grove, \$84; H. M. Wise, Wildwood, \$78; W. S. Zimmerman, Norristown, \$74; C. F. Idell, Oak Lane, \$72; J. H. Barr, Jenkintown, \$72; W. R. Felker, Lansdowne, \$66; C. G. Lorenz, Bryn Mawr, \$62; A. Gaffey, Norristown, \$60; D. Haley, Jenkintown, \$60; J. J. Hartman, Dover, \$57; C. W. Rich, Jenkintown, \$54; O. Farrow, Smyrna, \$54; S. F. Fulmer, Norristown, \$54.

An Odd Pole

To what account should we charge this removal?

In West Chester, Pa., our Rights of Way men struck a snag a few years ago. Permits were obtainable until they came to the property here shown on which a carpenter shop stands. Across the street the owner lived who objected to more than the visible number of scene-obstructers-namely, a lamp-post, an electric light pole and a tall tree. He had no objections to our men trimming the tree and using that as a pole, but would not allow a telephone pole to be placed there

Until recently the tree-pole served us, but when the substantial stepped pole here shown was erected a few weeks ago, the tree-pole was removed. As the tree-pole became weaker the other was absolutely necessary, and the owner's view-point had in the meantime changed radically.



Tree at West Chester, Pa., Used Until Recently as a Telephone Pole. (See description above)



Allentown District

During four weeks suggestion slips were handed in by the following members of the Bell Triangle Club, Allentown, Pa., District, netting approximately \$550 in revenue: E. W. Weaver, A. Markle, Miss S. M. Harley, F. W. Burkert, O. Diefenderfer, F. Eagle, J. Gaffney, C. Fritz, W. S. Anderson, F. A. Graver, A. Gregg, Miss F. I. Glose, F. Koch, Miss C. Gruver, A. Frick, P. Swavely, P. Detweiler, J. S. Miller, Miss K. Leibert, H. D. Carey, Miss Clara Jenkins, Miss F. Schrader, Miss E. Hart, Miss Rose Boyle, Miss S. Schleicher, M. V. Kemmerer, C. S. Hevener, Miss V. Burns, Miss K. Flory, M. Tubriody and G. Kirchgassner.

Harrisburg District

On May 6, Local Manager Watts at Harrisburg took the junior class of the Palmyra High School through our operating and terminal rooms. Arrangements were made for this visit through the Mayor of Harrisburg, to whom Professor Fenstermacher wrote to ask for points of interest in the city which could be visited during the trip. It is evident that the Mayor of Harrisburg realizes the desirable instruction which a visit of this kind means to the general public.

In this district suggestion slips were forwarded in April by John Koser, G. R. Keim and Harry C. Hess at Carlisle, by H. Shulenberg, L. Burtsfield, F. Wingler and B. Kauffman at Chambersburg, by Carl P. Rapp, F. Tyler, A. A. Harrow, Wm. Fitzpatrick, A. L. Moore, J. W. Weaver, W. H. Gardner, A. J. Hain and Roy Stambaugh at Harrisburg, by R. E. Immel, Mrs. I. Sultzbach, E. H. Weaver, W. Weitzel and K. B. Wendel at Lancaster, by J. W. Laubs, H. F. Thompson and B. Sease at Waynesboro, and by H. W. Smith at York. These employees represent the Plant and Traffic Departments in outside as well as inside work.

Fire at Greencastle, Pa.

Due to a general conflagration in Greencastle in the early morning of April 26, in which six stables were burned down along the route of our cable and toll line plant, the toll lines into Greencastle and approximately 350 of the 470 exchange subscribers were put out of service.

The fire was reported at 4 A.M., April 26, by the Cumberland Valley Railroad Company, and the Chief Operator at Greencastle reported the fire by the use of the opposition telephone company's service to the Plant Wire Chief at Chambersburg and also by Western Union telegram to the Harrisburg office. This was relayed to the Plant Supervisor at his home.

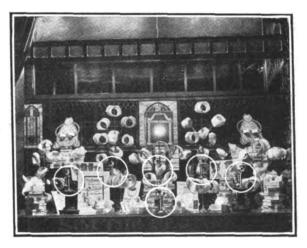
The Chambersburg Plant Wire Chief reached Greencastle on motorcycle by 5 A.M. and at 5:15 had cut in a subscriber's set on one of our trunk lines in order properly to report the amount of damage and necessary replacements.

About 125 feet of 100-pair, 22-gauge cable and the same amount of 50-pair, 19-gauge cable, in which trunks were looped, were burned out. The physical trunks were placed in operation by 7:15 A.M. by the use of a twisted pair wire. The necessary cable for replacement was forwarded from Chambersburg and from Harrisburg on the first train to Greencastle. The cable, which included a three-way splice, was immediately erected and by midnight of April 26 ninety-five per cent. of the subscribers out of service were reconnected. The

remainder of the scattered subscribers were placed in service Sunday A.M., April 27. It was necessary, after service was restored, to replace two of the poles that had been badly burned away, and this work and all other work in connection with this fire was completed shortly afterward.

Reading District

One of the warmest advocates of opposition service, and a subscriber for nearly twelve years, recently called at the Lebanon (Pa.) business office, accompanied by his wife, and requested to be shown through the central office. After the service and equipment had been thoroughly explained, he was so impressed that he signed for residence service and announced his intention of having the opposition service removed.



Bellefonte, Pa., Window Display, Williamsport District

Three hotel private branch exchange applications were obtained in this district within two weeks: Hotel Windsor, Shamokin, Pa., 42 stations; the Walters Sanitarium, Walters Park, 36 stations; and Grand View Sanatorium, Wernersville, 30 stations.

Scranton District

A subscriber asked one of our installers whether it makes any difference to the quality of the service if the cord on the telephone happens to be red instead of green. He was apparently satisfied when informed that it does not.

SMITHING.

Williamsport District

A subscriber at State College congratulated the Local Manager on the quick and fine service rendered on a long-distance call to Boston, Mass. He had been doubtful as to whether or not good service could be given as far as Boston. When he made his call he told the operator that he would talk if the message could be completed in one hour. The connection was established in twelve minutes. As a result of the efficient service on the part of our Traffic Department, the subscriber passed several long-distance calls and said he will talk often to Boston.

During January, February, March and April of this year 103 suggestion slips were received by the Local Managers from the various employees in the Williamsport District. Of the 103 prospects whose names were submitted, 51, when called upon by our salesmen, signed applications for service, from which we derived a revenue of \$978.

Of the 51 live prospects, 13 were suggested by employees of the Traffic Department, 5 by the Commercial Department and 33 by the Plant Department, as follows:

Traffic Department—Mary Johnsonbaugh, Effie Bowman, Anna Leitzel, Florence Moore, Reba J.

Thomas, Elizabeth Deitrick, Minerva Dunlap, Bess P. Nelson, Myrtle O'Brien.

Commercial Department—Milon P. Walker, Thos. W. Bower, Florence C. App, Besse Kopp. Plant Department—C. Miller, C. A. Donachy, L. N. Walzer, John Marley, B. D. Tate, Chas. N. Hazlett, H. Ocker, L. Spotts, J. I. Young, J. B. Carolus, C. L. Clarke, G. W. Kohn, W. P. Raymond, H. Sayford.

The senior class of the Bellefonte High School, forty in number, was taken through the operating room and business office of this Company at Bellefonte, Pa., May 15. Much interest and enthusiasm was shown by the students. Intelligent questions were asked and clearly answered by representatives of the Plant and Traffic Departments. All thanked the Local Manager for the pleasant and instructive tour through our office.

A subscriber rushed into the Commercial office in an excited condition to pay his bill, thinking that he had been temporarily disconnected for non-payment. When informed that a recent storm was responsible for the temporary disconnection, he was much surprised.

A very serious automobile accident occurred on the State Road between Sunbury and Selinsgrove. One of the occupants of the automobile, who received a severe scalp and neck wound, was saved from bleeding to death by a farmer's prompt use of the telephone.

Western Electric men are installing additional power equipment, rearranging the local and toll test-boards, installing a 48-volt battery, and rewiring the cord circuits on the toll positions in the Williamsport central office where the terminal room has been enlarged.

A new No. 1462 switchboard has just been installed in the Eagles Mere central office, replacing one of the few remaining obsolete types of switchboards in this district.

The first thunderstorm of the season passed over Lock Haven Sunday afternoon, April 27. A number of Bell telephone poles were damaged, including eight terminals, and about 50 lines and 150 instruments were temporarily affected.

150 instruments were temporarily affected.

District Foreman J. C. Young, Williamsport, with a crew of men arrived early Monday morning and by the following Wednesday had restored service to about 75 subscribers and to the other isolated subscribers by Friday and Saturday morning. It was necessary to make 45 cuts in the cable and the work required 140 feet of 100-pair cable and 200 feet of 50-pair cable.

Since installing the common battery system at Lock Haven, April 8, 1911, the number of our subscribers has increased 308.

The agent of a certain rural line club, receiving service from Sunbury, Pa., complimented the Chief Operator for the very prompt service received on a certain occasion when a telephone message was instrumental in saving the life of a very valuable horse.

A stranger walked into our Wellsboro joint office and asked the toll rate to York, Pa. The rate being more than he expected, he turned to go, when he was asked if he could not send a telegraph message. After quoting the rate, the operator helped him to frame a message and the party left, feeling grateful for assistance given. Frequently business solicited in this way is very much appreciated.

Dinner to Mr. W. R. Driver Jr.

Prior to his departure for New England to assume the General Managership of that Company, a dinner was given to Mr. W. R. Driver, Jr., by approximately eighty officers, associates and assistants at the Golf House of the Merion Cricket Club at Haverford, Pa.

Among the out-of-town guests were Messrs. H. F. Thurber, E. F. Sherwood, E. Corrigan, J. S. Wiley, J. L. Swayze and R. V. Marye.

Mr. S. E. Gill acted as toastmaster and called

upon Messrs. Driver, Hayward, Swayze, Crosman, Kinnard, Thurber and others for brief talks.

It may be mentioned quite incidentally that during the afternoon Mr. Driver and Mr. Barrows captured the foresome golf championship of the Company, winning on the eighteenth green from the Commercial Department representatives.

A gold mounted penknife, engraved to fit the occasion, was given to Mr. Driver by his supervisory women emvloyees on the morning of the

Chief Operators' Outing

THE Chief Operators in and near Philadelphia were royally entertained Tuesday afternoon, May 20, at the Hotel Walton, Broad and Locust Streets, Philadelphia. Forty-seven were present at luncheon and two more at dinner. They came from the surrounding towns as far as Dover, Del., Atlantic City, Trenton and Coatesville, including the old Delaware-Atlantic territory, the Diamond State and Philadelphia proper. In addition the A. T. & T. Company Chief Operators from Philadelphia and Newtown Square were guests.

After luncheon eight seven-passenger Packard touring cars took the girls through Fairmount Park, the Main Line district, Conshohocken, Barren Hill, Chestnut Hill and Lincoln Drive and return to the Walton, arriving there about

A reception was then held in which the operators met the Traffic Supervisors and Superintendents as well as Mr. Kinnard and the heads of the

Minstrel Show by a Local Club West Chester, Pa. in Which Our Booths and Signs Were Used

> (See page 14 Local News)



Our Societies

The Camden Telephone Society

The second annual banquet of this society, announced in our last issue for May 17, has been unavoidably postponed until Saturday evening, June 7, at 8 o'clock sharp. It will be held at the Ridgway House, Delaware Avenue and Market Street, Camden.

The event is the last of the season for this society.

The Spare Pair Society

Saturday, June 21, 2 P.M.

P. R. R. Y. M. C. A. Grounds, Forty-fourth and Parkside Avenue, Philadelphia.

This being the closing event of the season, J. H. Babin, Secretary of the Field and Track Committee, arranged for track events of moment, and a baseball game is scheduled immediately after the completion of the rest of the events.

The events scheduled are:

100 yards novice (flat), running broad jump, running high jump, standing broad jump, 220 yards hurdles handicap, discus, 100 yards handicaps, potato race, 1/4-mile handicap, quoits and 1/2-mile 4-man-team relay.

various departments. This was the first opportunity for them to see their new department head, Mr. J. C. Lynch.

Throughout the visit to Philadelphia the outof-town employees were the guests of the Philadelphia Chief Operators, with Miss M. D. Cardwell, Principal of the School, in entire charge.

No men were present at the luncheon or dinner, and it is safe to say no business was permitted to be discussed. It was purely an afternoon of enjoyment, as their faces showed when they arrived at the Metropolitan Opera House at 8 P.M.

The operators in Philadelphia were so numerous-nearly 1200-that to enable their Supervisors to designate them, flowers of various kinds were worn. The Filbert operators wore pink peonies; North Philadelphia, pink carnations; Germantown, red roses; Market, red peonies; West Philadelphia, lilies-of-the-valley; Long Distance operators, lavender sweet peas; Central group, both white carnations and cornflowers; Service Inspection group, pink sweet peas; Operators' School, white peonies. The Camden operators joined in the plan by wearing yellow daisies. The Supervisors had lists of the selected flowers and were thus familiar at all times with their own forces.

Dinner to Mr. J. C. Lynch

The Traffic men of the New York Company tendered Mr. John Cooper Lynch a dinner Monday evening, May 19, at the Hotel Astor, it being his final appearance among them as an associate. Officers and men of the other departments were also present in the college room of that hotel, where the dinner was held.

Brief responses were made at the toastmaster's request by several of Mr. Lynch's friends.

In the morning a request had been received at Philadelphia for seventy-five post cards with Mr. Lynch's portrait on them. The local portrait artist who recently made some photographs of him was telephoned, but as it was not in his line of work, he could do nothing. Another was interviewed, and with a copy of THE TELEPHONE News, May 15, as his subject, he made and delivered the seventy-five post cards by 3:45 P.M.less than four hours after he received the order. They were placed wet between blotters and sent by special messenger leaving Philadelphia at 4 and arriving at New York at 6. The names of guests were written on the cards, the stamps were canceled, the cards were postmarked and handed by a Post Office employee to a representative of the New York Telephone Company. He delivered them to the guests assembled at the dinner—a rather speedy job considering the number of people concerned from the first telephone request, at 11 A.M., until the hour of the dinner, 6:30 that evening.

The menu, in the form of standard instruction sheets, was titled "Traffic Department Instructions 9,723,851—Farewell to Jack Lynch." Each "proof" was filed as ready by "Nobody"-so the pencil-note indicated.

Seven pages of songs were introduced with

"George says-

"Song is the science of aviating with the voice. Many men sing happily without any practice. When from three to seven men are quarteting and singing passionately together, blending perfectly on a difficult chord every few minutes, they are too happy to do any harm. Moreover, after listening to them for a while, it is much easier to appreciate good bagpipe music.

"So why not sing?

As a token of appreciation, Mr. Lynch was presented by the New Jersey Chief Operators, Supervisors and School Principal with a gold watch suitably engraved.

Accounting Women Dine

There were twenty-five supervising women in the Accounting Department who had parts in the entertainment and were therefore required to be downtown on the evening of the society meeting.

The Division Auditor of Receipts arranged for a dinner at Kugler's at 6 P.M., May 20, for these supervising employees among the bookkeepers. toll clerks, pay-roll and main stenographers in both the Revenue and Disbursement Divisions. Each girl received some flowers, and in conclusion all were taken to the Metropolitan Opera House in taxicabs. There Mr. Hons, who had preceded them, saw that they were directed promptly to their places. They surely enjoyed and appreciated it all, for they acknowledged it with a note. next day, which everyone signed.

Organization Changes

The Central District Telephone Company

P. J. Vonderau, Cable Foreman, Pennsylvania District Cable Crews, has been advanced to Conruction Foreman, Greensburg District.

Daniel F. Smith, Jr., has been advanced from Repairman to Storekeeper, Pittsburgh District.

The Bell Telephone Company of Pennsylvania

Victor Egbert has been appointed Assistant Managing Editor of THE TELEPHONE NEWS. Digitized by

- O. Kohler, formerly Wireman, has been appointed Surveyor, Philadelphia.
- H. Hawthorne, Lineman, has been made Assistant Foreman, Erie District.



VOL. IX

PHILADELPHIA, PA.

JUNE 15, 1913

No. 12



First Floor, 1230 Arch Street, Philadelphia, where are received all messages regarding applications for service, changes, removals, disconnections and other similar business

Organization and Practice of the Philadelphia District Office

By J. M. Brown, Jr., Cashier

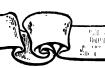
In April, 1911, approval was given to handle mail, telephone calls and collection matters and to write line orders at a central point, 1230 Arch Street. The chief object in doing this was because the office in the central section of the city

then handled a large amount of business belonging to the other offices, and as the records were maintained in the outlying offices it seriously slowed up the transaction of business.

Certain outlying offices were and are still maintained, so that anyone wishing to pay bills, sign applications, or make any inquiry may do so locally. Thus the convenience is not sacrificed in any way by our centralization of a large part of the force.

The centralized office was first divided into units, each unit handling contract and collection matters in certain central offices covering a district in the city. The size of the force in this office was so enormous that it subsequently developed the possibilities in supervising and specializing closely in the work of handling mail, telephone calls, adjustment of bills, collections, and the writing of line orders. Consequently, in May,

(Continued on page 2)





Mail and Contract Clerks

Philadelphia District Office

(Continued from page 1)

1911, the Philadelphia District office was divided into three departments—the collection department, the business office and the sales force. The organization of the business office and collection department will be described briefly.

Business Office

In the business office the former method of referring correspondence and telephone requests to salesmen for attention was found not only cumbersome and tardy, but most expensive to handle; the sales force was therefore completely severed from the office and devoted its attention entirely to procuring new business. Three supervisors have charge of the salesmen and report to the Contract Manager.

The business office was placed under the supervision of a chief clerk and reported to the Cashier. The primary factor in organizing was to have ample supervision. A number of clerks were assigned to a special kind of work, and a man placed in charge to supervise. The duties of each clerk were carefully analyzed and put down in writing. To show the development of their duties it will be necessary to explain more fully in a general way.

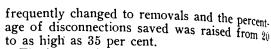
Reporting to the chief clerk are the correspondence clerk, the line order clerk, the supervisor of the telephone order table, and the credit clerk.

Correspondence

The correspondence clerk is given full charge of correspondence, the rule being that mail from subscribers must receive courteous, prompt and correct attention on the day of its receipt.

The correspondence clerk distributes the mail among the mail clerks upon its receipt in the office. The mail clerks immediately acknowledge and

arrange for whatever is requested. If subscriber's signature to a contract form is necessary, a blank is mailed on the same day. By calling subscribers promptly upon receipt of letters it was found that requests for disconnection were



The increased amount of work placed upon the stenographers on account of mailing forms, in lieu of having salesmen secure the signatures, necessitated a means to relieve their burden without increasing the force. To do this, form letters were printed to cover practically every change where there were such letters to write. Under this system it is believed that two stenographers are doing the work that would otherwise require at least six stenographers to do.

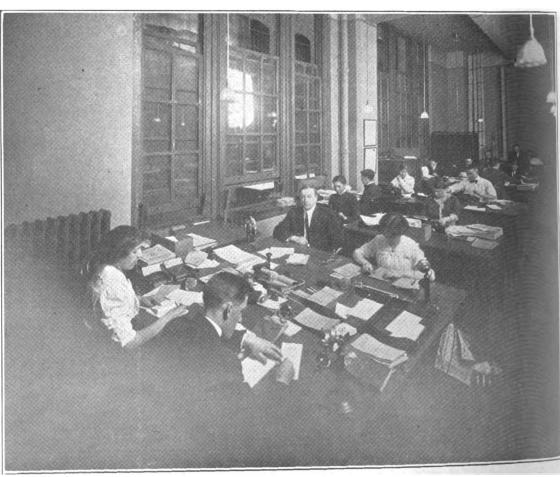
Special Agents

When correspondence was taken out of the hands of the salesmen it was found necessary, if a subscriber desired to have a representative call in person or if we could not reach the subscriber by telephone, to have the special agents handle this correspondence. At first there were ten men and a supervisor covering the entire city. As the clerks in the office became more proficient and as the public became educated to our methods of handling work, it became possible to reduce the force of subscribers' agents from ten to six men and do the work without the assistance of a supervisor. The subscribers' agents were then placed under the supervision of the correspondence clerk

Correspondence going to special agents is charged out to them on a card by a record clerk, whose duty it is to see that the agents attend to the case on the same day it is received; if it is impossible to do so, to report the cause.

Telephone Order Table

The telephone order table put into practice the idea of using advance orders and having applications signed subsequently. Previous to this practice, when a subscriber telephoned to the office a salesman was sent to have a form signed. The form was returned to this office before an order was issued. At the present time, it is learned



Delayed Order Clerks





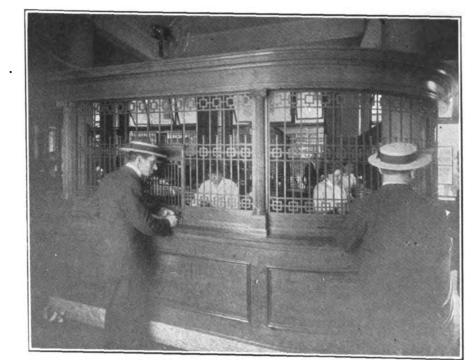
from the subscriber who calls the office just what is desired and an order is issued at once. The contract form is mailed for his signature, so that there is no delay in the completion of the work. Every call received in the office is thus given prompt attention, and it is not an infrequent occurrence that the work is completed before the form is returned to the office by the subscriber.

The supervisor of the telephone order table has his position so arranged that he can make a test on any of the twelve positions without the knowledge of the clerk receiving the message. By this plan he is able to determine the efficiency with which calls are handled and to correct any faults that may exist. Under such a system of close supervision the work of the order table is improving and developing rapidly.

The practice of making a memorandum of every inquiry or request received at the business office is established, and each call is treated exactly as if it were a letter from the subscriber. These memoranda are placed in the correspondence file. With this method there is a complete record of every inquiry or request from any subscriber, whether made by letter, telephone or personal visit to the office.

Line Order Work

In outlining a system for issuing line orders, the foremost thought has been to devise some method whereby correct line orders will be issued and the errors will be reduced to a minimum. To accomplish this, comprehensive supervision is most essential. It rapidly developed, however, that even under strict supervision there were entirely too many errors. Upon investigation this was found to be due chiefly to the inadequate and well-worn card record of contracts. The information on many of these cards was in-correctly written and indiscernible. The existence of this condition suggested the thought of bringing the original contracts held in the Accounting



Department into the district Commercial office so that line orders could be written from them. This was a big undertaking, but in a short time the plan was perfected and the entire contract card file was dispensed with,

Tellers

A contract inspector now supervises all signed contracts and passes upon their correctness before orders are issued. In this way the number of errors due to contracts being incorrectly filled out is minimized.

The next step was to issue line orders correctly to prevent correction line orders, thereby saving all departments the additional time and expense of handling such orders. To attain this end a line order inspector was appointed to supervise all line orders after they had been written. This plan worked well, but as yet the number of errors had not reached the vanishing point sought for. It was evident that the work was too much for one clerk satisfactorily to check, and the plan of having two clerks, one to read line orders while the other compared with contracts, was adopted. This practice has shown splendid results, and every error found on the line order is taken up with the typist responsible so as to raise the grade of the typist's work.

The standard of the line order department is to issue orders correctly and on schedule time. The schedule in effect is that all orders must be issued on the day the contracts are received in the business office. To accomplish this it is therefore necessary to work a force of typists from 5 until 11 P.M. in order to have the orders received from the salesmen reporting at the office at 5 P.M. in the hands of the Wire Chiefs not later than 9 A.M. on the following morning. By the adoption of this practice the Plant Department is able to complete orders twenty-four hours earlier than it would if the orders were issued the following morning.

After the contract files had been transferred from the Accounting Department to the district office, in order to have the correct record available, and after providing the practice to issue orders correctly and in schedule time, a bureau was established to check all uncompleted line orders with Plant Department so as to avoid delay.

Delayed Order Desk

The object of this force is to have accurate information on file in the Commercial office regarding pending orders for the purpose of advising subscribers making inquiry regarding installations.

The delayed order clerks, as they are called, keep a complete file of the line orders in the same manner as the file contained in the District Foreman's office. If an order cannot be completed on schedule time the Plant Department notifies the district office on a delayed order notice of the reason for delay and the approximate date of completion. When an order extends beyond the schedule time and no delayed order notice has been received from Plant, the delayed order clerk calls the foreman to learn the reason why the



Exchange Cashiers. When this photograph was taken, remittances for 8000 accounts had just been received—one of the month's busiest days

Digitized by GOGIC



Mail and Contract Clerks

Philadelphia District Office

(Continued from page 1)

1911, the Philadelphia District office was divided into three departments—the collection department, the business office and the sales force. The organization of the business office and collection department will be described briefly.

Business Office

In the business office the former method of referring correspondence and telephone requests to salesmen for attention was found not only cumbersome and tardy, but most expensive to handle; the sales force was therefore completely severed from the office and devoted its attention entirely to procuring new business. Three supervisors have charge of the salesmen and report to the Contract Manager.

The business office was placed under the supervision of a chief clerk and reported to the Cashier. The primary factor in organizing was to have ample supervision. A number of clerks were assigned to a special kind of work, and a man placed in charge to supervise. The duties of each clerk were carefully analyzed and put down in writing. To show the development of their duties it will be necessary to explain more fully in a general way.

Reporting to the chief clerk are the correspondence clerk, the line order clerk, the supervisor of the telephone order table, and the credit clerk.

Correspondence

The correspondence clerk is given full charge of correspondence, the rule being that mail from subscribers must receive courteous, prompt and correct attention on the day of its receipt.

The correspondence clerk distributes the mail among the mail clerks upon its receipt in the office. The mail clerks immediately acknowledge and

arrange for whatever is requested. If subscriber's signature to a contract form is necessary, a blank is mailed on the same day. By calling subscribers promptly upon receipt of letters it was found that requests for disconnection were

frequently changed to removals and the percentage of disconnections saved was raised from 20 to as high as 35 per cent.

The increased amount of work placed upon the stenographers on account of mailing forms, in lieu of having salesmen secure the signatures, necessitated a means to relieve their burden without increasing the force. To do this, form letters were printed to cover practically every change where there were such letters to write. Under this system it is believed that two stenographers are doing the work that would otherwise require at least six stenographers to do.

Special Agents

When correspondence was taken out of the hands of the salesmen it was found necessary, if a subscriber desired to have a representative call in person or if we could not reach the subscriber by telephone, to have the special agents handle this correspondence. At first there were ten men and a supervisor covering the entire city. As the clerks in the office became more proficient and as the public became educated to our methods of handling work, it became possible to reduce the force of subscribers' agents from ten to six men and do the work without the assistance of a supervisor. The subscribers' agents were then placed under the supervision of the correspondence clerk.

Correspondence going to special agents is charged out to them on a card by a record clerk, whose duty it is to see that the agents attend to the case on the same day it is received; if it is impossible to do so, to report the cause.

Telephone Order Table

The telephone order table put into practice the idea of using advance orders and having applications signed subsequently. Previous to this practice, when a subscriber telephoned to the office a salesman was sent to have a form signed. The form was returned to this office before an order was issued. At the present time, it is learned



Delayed Order Clerks

Tellers



from the subscriber who calls the office just what is desired and an order is issued at once. The contract form is mailed for his signature, so that there is no delay in the completion of the work. Every call received in the office is thus given prompt attention, and it is not an infrequent occurrence that the work is completed before the form is returned to the office by the subscriber.

The supervisor of the telephone order table has his position so arranged that he can make a test on any of the twelve positions without the knowledge of the clerk receiving the message. By this plan he is able to determine the efficiency with which calls are handled and to correct any faults that may exist. Under such a system of close supervision the work of the order table is improving and developing rapidly.

The practice of making a memorandum of every inquiry or request received at the business office is established, and each call is treated exactly as if it were a letter from the subscriber. These memoranda are placed in the correspondence file. With this method there is a complete record of every inquiry or request from any subscriber, whether made by letter, telephone or personal visit to the office.

Line Order Work

In outlining a system for issuing line orders, the foremost thought has been to devise some method whereby correct line orders will be issued and the errors will be reduced to a minimum. To accomplish this, comprehensive supervision is most essential. It rapidly developed, however, that even under strict supervision there were entirely too many errors. Upon investigation this was found to be due chiefly to the inadequate and well-worn card record of contracts. The information on many of these cards was incorrectly written and indiscernible. The existence of this condition suggested the thought of bringing the original contracts held in the Accounting



Department into the district Commercial office so that line orders could be written from them. This was a big undertaking, but in a short time the plan was perfected and the entire contract card file was dispensed with.

A contract inspector now supervises all signed contracts and passes upon their correctness before orders are issued. In this way the number of errors due to contracts being incorrectly filled out is minimized.

The next step was to issue line orders correctly to prevent correction line orders, thereby saving all departments the additional time and expense of handling such orders. To attain this end a line order inspector was appointed to supervise all line orders after they had been written. This plan worked well, but as yet the number of errors had not reached the vanishing point sought for. It was evident that the work was too much for one clerk satisfactorily to check, and the plan of having two clerks, one to read line orders while the other compared with contracts, was adopted. This practice has shown splendid results, and every error found on the line order is taken up with the typist responsible so as to raise the grade of the typist's work.

The standard of the line order department is to issue orders correctly and on schedule time. The schedule in effect is that all orders must be issued on the day the contracts are received in the business office. To accomplish this it is therefore necessary to work a force of typists from 5 until 11 P.M. in order to have the orders received from the salesmen reporting at the office at 5 P.M. in the hands of the Wire Chiefs not later than 9 A.M. on the following morning. By the adoption of this practice the Plant Department is able to complete orders twenty-four hours earlier than it would if the orders were issued the following morning.

After the contract files had been transferred from the Accounting Department to the district office, in order to have the correct record available, and after providing the practice to issue orders correctly and in schedule time, a bureau was established to check all uncompleted line orders with Plant Department so as to avoid delay.

Delayed Order Desk

The object of this force is to have accurate information on file in the Commercial office regarding pending orders for the purpose of advising subscribers making inquiry regarding installations.

The delayed order clerks, as they are called, keep a complete file of the line orders in the same manner as the file contained in the District Foreman's office. If an order cannot be completed on schedule time the Plant Department notifies the district office on a delayed order notice of the reason for delay and the approximate date of completion. When an order extends beyond the schedule time and no delayed order notice has been received from Plant, the delayed order clerk calls the foreman to learn the reason why the



Exchange Cashiers. When this photograph was taken, remittances for 8000 accounts had just been received—one of the month's busiest days

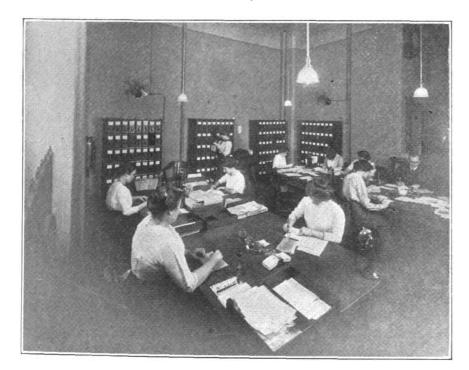
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Contract Clerks

Steel Files

Correspondence Clerks

order is held. After ascertaining it he notes the information on his copy of the line order. The clerk in the business office, upon receipt of an inquiry from a subscriber as to when service is to be installed, is in a position to furnish the information promptly from the records in our office without the necessity of calling the foreman's clerk. There are, of course, a few exceptions to this practice, when it is necessary to call the foreman's office to get further or more definite information.

Our organization, based primarily on correctness, promptness and courtesy, aims to educate the public to transact business by telephone. We aim to practice this ourselves by giving prompt attention to telephone inquiries and requests as to letters or personal visits. Our success is shown by the fact that the new business secured by the office force has increased threefold. This naturally requires from the sales force a more thorough job of straight selling.

Without the advantage of personal observation in selling service by telephone, it was felt that we had reached the stage where a closer supervision of applicants for service was most essential so as to determine whether applicants were of such character as to warrant us in extending them credit; a credit bureau was therefore established. All new applications, changes of name, etc., now come under the supervision of this bureau. The marked success of this practice is clearly shown in the reduced number of disconnections on contracts in their initial period.

A careful estimate was made (by counting and otherwise) of the cases handled daily by the present method in the business office. It was found that on an average business day 1700 inquiries and requests are received and disposed of by that office. This number is divided into 200 personal calls, 500 letters, and twice as many telephone messages. In addition, from 350 to 400 line orders are issued in the same period.

In outlining the various practices and development of practices in the business office, only the important changes and improvements we have made have been mentioned. These developments did not stop at the big things, however, but extended to the most minute practices and methods throughout the entire office.

The collection methods and changes are no less interesting and successful.

Collection Work

The collection department, under the supervision of the Cashier, has reporting to him the Assistant Cashier, responsible for the office force and adjusters, and a chief automatic collector in charge of automatic collections.

Subscribers' accounts are grouped by central offices arranged into ten separate units, each in charge of an Exchange Cashier assisted by a clerk and collector, whose duties include the collection and adjustment of accounts.

The tellers formerly prepared all remittances for deposit and reported them. By the unit arrangement the return envelopes enclosed by the Accounting Department with subscribers' bills are numbered corresponding with the several groups of central offices. They furnish a ready means of identification and prompt distribution to the respective units upon their receipt in this office, where the work of preparing the deposit and reporting remittances is now performed.

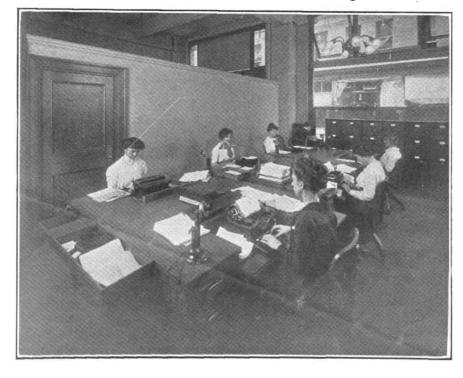
No-Stub Plan

At one time the Accounting Department furnished at the beginning of each month a second stub, known as the office stub, for each subscriber's account. This was used when payments were received in reporting remittances to the Accounting Department.

The method had the effect of slowing up the work and gave way to the plan of having one stub only attached to bills. This eliminated time formerly consumed in locating and balancing office stubs.

With the no-stub plan, remittances are reported to the Accounting Department by using the stub attached to subscriber's bill. The Accounting Department prepares only such "arrears stubs" as are necessary for the enforcement of the collection routine.

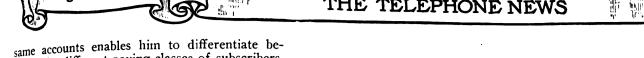
By the unit arrangement each Exchange Cashier is made responsible for the collection of approximately 8000 accounts and the adjustment of all disputes arising upon them. He is required to acknowledge receipt of all claims on the date of their receipt and to close them as soon thereafter as possible. Constant association with the



Stenographers and Typists

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tween the different paying classes of subscribers.

In preparing the bank deposit it was formerly necessary to note on the adding-machine tape (which accompanies each deposit of checks) opposite the amount the name of the bank on which the check was drawn. This consumed a considerable amount of time and a big saving was made when the practice was discontinued.

A delay was also experienced in receiving the morning's mail. Arrangements were made with the Post Office for direct delivery of unit-numbered envelopes to this office shortly after 8 o'clock each morning.

A much better and quicker method of opening the morning's mail was discovered in a rapid mail-opening machine which was purchased and has rendered efficient service in the past year.

A machine borrowed from the Accounting Department furnished the most rapid means of sealing and stamping envelopes for the return of receipted bills and all correspondence.

Through the saving of time thus effected it was possible to consolidate two units and to increase the duties of the Exchange Cashiers, their clerks and collectors, as it enabled them to handle claims and adjustments with much more dispatch. It allowed time to investigate more thoroughly differences and devote more effort toward the collection of large current accounts. Likewise, the condition of delinquents has been benefited and has shown its results in the constantly decreasing number of arrears accounts.

At the beginning of 1912 a standard local practice was adopted showing in minute detail the methods and duties of the entire collection organization. This has from time to time been supplemented by additional instructions, so that it is now complete in each detail.

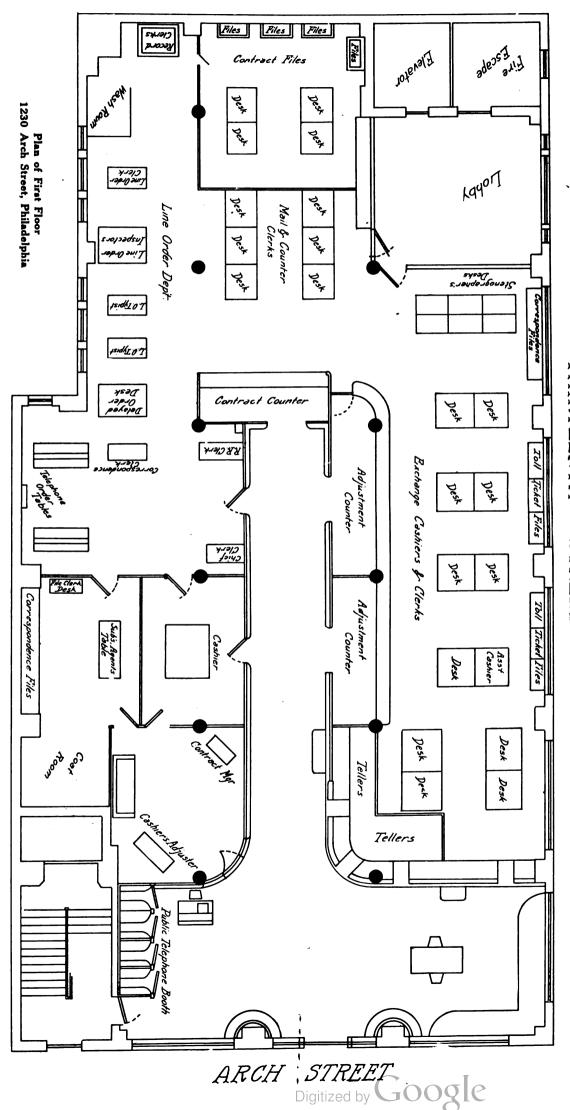
Coin-Box Collectors

In the coin-box department considerable time and expense has been saved in the method adopted for remitting collections. Previous to 1912 each collection was entered on remittance sheets (Form 1107) showing telephone number, name, time of collection, amount collected, and amount of commission paid. After entry was made the sheets were then totaled and balanced with the collector's money. We advanced from this practice to that of having the clerk in the office total the collector's route-book on the adding machine. While this was being done the collector counted all nickels and dimes in the coin-counting machine and another clerk counted all other silver money and notes. The adding-machine tape, showing the total amount collected and total amount of commissions, is attached to routebook and forwarded to Accounting Department, where collections are checked against their record cards and commissions are verified.

Since January we have advanced still further in the saving of the collectors' time by having a clerk in the office count the money turned in by the collector and balance with the route-book.

Collectors' route-books have been routed geographically, a move which greatly facilitates the handling of route-sheets on new connections, disconnections, etc. Each central office district is divided into a number of subdivisions or blocks, and all route-sheets on stations located in the boundary of each block are confined to one collector's route-book.

Prior to January the collectors were assigned to certain exchange districts. This resulted in a loss of considerable time, and by rearranging the work so that our collectors now work in squads, clearing up certain sections of the city during a month, this loss has been eliminated.



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THE TELEPHONE NEWS

Published the first and fifteenth of each month in the inter The Bell Telephone Company of Pennsylvania The Central District Telephone Company The Delaware & Atlantic Telegraph & Telepi The Diamond State Telephone Comp

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No. 12

A Dinner Experience

N Sunday Mr. Blank invited me over to his house for dinner. Shortly after dinner someone suggested that a telegram be sent to the Joneses in New York wishing them a pleasant and safe ocean voyage. Mr. Blank went to the telephone and called for the telegraph office. There was a slight delay and then came back the report, "Number is busy." Mr. Blank returned to his chair and, knowing that I was in the employ of the Telephone Company, said to me: "What's the matter with your Company? Why don't they provide better telephone service? This 'busy' report always annoys me and I have noticed it frequently in calling the telegraph office." Just then the operator called, as the line was no longer busy, and Mr. Blank telephoned his message.

Then the subject was changed, but I had made a mental note of the criticism. Arriving at the office at eight o'clock the following morning, I reported this complaint to the proper Traffic Supervisor and the next day this letter was mailed to Mr. Blank:

"On the afternoon of May — you made - to the effect a remark to our Mr. that our service could be improved by providing more telephone lines to the Telegraph Company. We do not know how serious you were about this matter, but since it is our policy to look into the smallest criticism of any kind, the following report may prove of interest to you.

'Our Traffic Department had been making service tests on the telephone lines in question the day before you made your complaint, and an application had been signed for installation of additional telephone lines which will prevent a recurrence of your experience.

"It is a pleasure to investigate these matters for our patrons, and I assure you that any further criticism of our service will be sincerely welcomed."

Doesn't this example illustrate fairly

accurately the "public-be-pleased" attitude and a commendable "no-criticismunanswered" policy? It is a well-known fact that "each employee is the Company," and bearing this in mind, doesn't it behoove every one of us to take up in somewhat this manner all criticisms of our Company and report them to the proper department for necessary attention?

Does a New Position Appeal?

N THE TELEPHONE NEWS of April 1, 1910, there is a reprint of an article from the Michigan State Gazette titled "Shall I work for a corpor-"Which?" ation," says one paragraph, go in business for myself?" or shall I The wellprepared introduction gives solid arguments for the former choice and drives home the point with: "Especially when we have spent the younger years of experience in the service of a corporation, great must be the inducement to warrant us in canceling its value and taking up a new business without knowledge of its detail or surety of our aptitude.

In considering the number of failures in business that are annually recorded by statisticians, we may not fairly say that all or even the majority are due to mediocrity on the part of the venturers. Misfortunes, which proverbially never come singly, are seldom with warning. unfavorable weather, financial depressions, illness, and lack of support from those on whom reliance is placed,-all or any of these uncharted reefs may be in the ship's course,—and all may prove disastrous to a business lacking capital. Further, a man may work with untiring zeal and with loyal assistants, but without that going value" that well-established businesses possess his efforts may be in vain.

The disappointments that we "know not of" are numerous in the early histories of starting businesses. Many failures, due to the keenest competition, are never mentioned by those who have had to bear them. Sometimes, in desperation, rates for goods and services are quoted that cool deliberation would recognize as foretelling fail-After a varying period of severe struggling, appeals for backing and repeated losses, the presidents, treasurers and other officers give up the own-business "ghost" and seek any other lines where early experience has made their services useful.

Occasionally in some businesses, and always in others, the natures of those lines have brought so many and such rapid changes that the former employee, who returns for reëmployment, finds it difficult to adapt himself. Then he drifts into

other lines—making his former experience of still less value through lapse of timeor is glad to accept a much less desirable place in the solid, "going" industry.

Not only does the rolling stone gather no moss, but the businesses and even the professions are heavy losers because of the tendency of these stones to keep rolling. As the seasons change, the desire for other surroundings and conditions is sure to arise. The reliable worker who is content with his firm's treatment is nearly, if not always, the one who attains his desires. He can afford to be dissatisfied only with his own grade of work.

Summer Accidents

COME time ago an employee was injured while riding his bicycle. His report was about as well-worded as was his display of forethought just prior to the occurrence. It read: "Bicycle was leaning against pole and wind blew bicycle over, the oil in the lamp leaked out, when light was lighted the oil caught fire and the man tried to blow it out, by leaning over handle bars while riding and bumped

Judging from the punctuation and wording, it might be inferred that the bump came after a swift ride downhill. The omission of particles and the evident hurry in phraseology express quite clearly the finish-it-anyhow spirit that is to be blamed for the majority of our accidents.

Now that summer is "on" and various kinds of construction and maintenance jobs are under way, it is a most fitting time to remember the bicycle bump and think once at least before acting.

Fence Climbing

HE Transmitter aptly calls attention to an important point in adjusting, as this excerpt from C. S. Albert's good article on "Traffic Mannerisms" shows:

"In handling complaints, try to get on the same side of the fence as the subscriber, and after he has had his say, climb back on your own side and make your defense. If you or your fellow-workers are at fault, don't try to crawl; admit the error and then get in a good lick by convincing the subscriber that the matter is of vital importance and will receive attention. Above all things, don't get into the 'I am sorry' and 'It won't happen again' mannerisms."

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Bellefonte, Pennsylvania, Operating Room

Bellefonte, Pa., Williamsport District

F two lines are drawn diagonally across Pennsylvania they will intersect almost at the site of Bellefonte, the county seat of Center County. The town, which has a population of 4500, gets its name from the spring which is one of its main points of attraction. The flow of this spring is over twenty millions of gallons every twenty-four hours. About one-tenth of this is used and the remainder overflows into Spring Creek.

Town of Governors

Bellefonte is justly proud of having given the state three Governors: Governor Curtin, famous as the War Governor during the Civil War; Governor Hastings, and Governor Beaver, who still resides in Bellefonte and is now a Judge of the Supreme Court.

Schools

The town is noted also for its good schools, both public and private. A new high school building was erected a year ago at a cost of \$100,000, and the famous Bellefonte Academy, which is over a century old, has broken ground for new buildings both for classrooms and dormitories in order to accommodate the increasing number of out-of-town students.

Industries

The main industries are the large limestone quarries and plants almost surrounding the town, a large match manufacturing company, three planing mills, foundry, swing factory, shirt factory, besides other small manufacturing plants. The American Lime and Stone Company has five plants in operation in this vicinity and ships lime to all parts of the country.

A few miles out from Bellefonte is located one of the state fish hatcheries where trout are hatched and sent to all parts of the state to stock the trout streams. Last spring the high water

flooded the hatchery and thousands of the trout were washed into the stream running through Bellefonte. Thus the local devotees had trout fishing during the season right at home.

Telephone Growth

Our station figures have grown from 346 exchange and 102 rural stations in 1907 to 546 exchange and 277 rural stations on April 1, 1913. Common battery service with semi-selective ringing was recently installed at Bellefonte, replacing magneto service. The offices of the Commercial Department were moved from the second to new quarters on the ground floor of the Bush Arcade Building. The quarters of the Plant and Traffic Departments are located on the second floor. The building has been remodeled to comply with standard specifications and the Company now has at Bellefonte very desirable quarters.

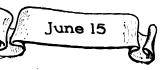
Near-by Exchanges

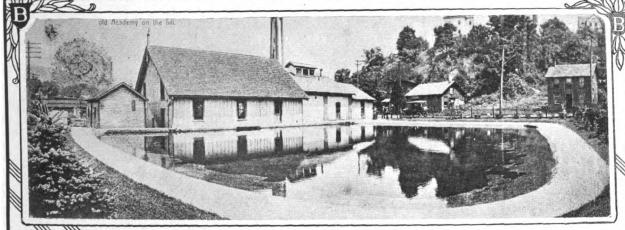
There are four other exchanges in the Bellefonte District: Centre Hall, Spring Mills, Millheim and State College, in all of which the tele-

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Bellefonte's Celebrated Spring

phone development has been marked. Centre Hall in 1907 had 32 exchange and 26 rural stations, and on April 1, 1913, had 71 exchange and 144 rural stations. Spring Mills exchange was opened in September, 1907, with 75 subscribers, and has grown to 120 on April 1, 1913. Millheim in 1907 had 109 exchange stations and no rural lines, and on April 1, 1913, had 62 exchange and 104 rural stations. The growth at State College is worthy of special attention. At this small town, twelve miles from Bellefonte. is located the Pennsylvania State College, the progress of which is known throughout the entire state. The college was founded in 1855 as a school for farmers. It now has enrolled more than 2000 students. It is specially noted for its courses in Agriculture, Electrical, Mechanical and Mining Engineering. It has a complete course in Telephony. During the football season the students arrange with the A. T. & T. Co. for shortperiod talking circuits, and receive returns by plays of all the important games. The returns are given by the use of electric lights and a blackboard showing the field. In this way the students who are unable to accompany the team get the benefit of the games as each play is made. Served by the State College exchange in 1907 there were 44 exchange stations and on April 1, 1913, we had in service 218 exchange and 82 rural stations.



Allentown District

The installation of a No. 4 switchboard with 20 stations in the hardware store of C. Y. Schelly & Brother, Allentown, was completed on May 19, replacing a No. 2 P.B.X. with 9 stations. The sales force was collected after working hours on Monday and instructions were given by the head of the firm and Salesman W. J. Sheldon, Jr., relative to selling by telephone.

The summer exchange at Delaware Water Gap was opened May 16 with 27 stations completed. WOLF.

Altoona District

The Altoona Tribune, a morning newspaper, has signed an application for a No. 2 private branch exchange service. When this installation is completed, three of the four newspapers at Altoona will be so equipped.

On May 13, at 11:45 A.M., a fire broke out in Altoona destroying 50 feet of cable, one terminal, and several loops. At 12.25 P.M. the cable and necessary apparatus were on the ground and service was speedily restored.

A coal dealer at Huntingdon, hearing that a pair of draught horses were to be offered at a

public sale, decided to buy them if possible. Unfortunately he was taken ill on the day and was unable to be there, but the farmer at whose place the sale was held had service on one of the rural lines and the local man was able to have his bid accepted over telephone.

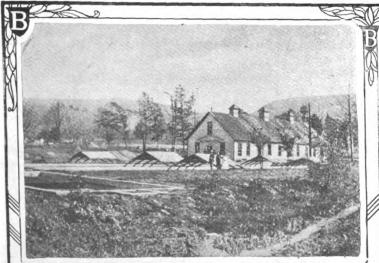
A Huntingdon merchant, on going out of business on April 1, had telephone service disconnected as he felt he would not be justified in continuing the telephone for household purposes alone. He recently signed an application for residence service, saying at the time that he simply had to have a telephone if only to hear the bell ring.

A prominent Huntingdon resident, who has been in the habit of spending the winter months in the South, had always refused to consider residence telephone service, believing that only annual contracts were acceptable. On explaining our short-term rate, the idea met with approval and resulted in a signed application for service.

A Huntingdon young matron complained that the telephone in her residence had resulted in an increase in household expense, for the reason that when the various trades-people called her to inquire as to her needs she hated to reply, "Nothing to-day."

Harrisburg District

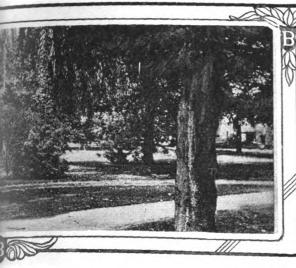
Quite a novel plan was adopted by the Traffic Department at Harrisburg in order that the

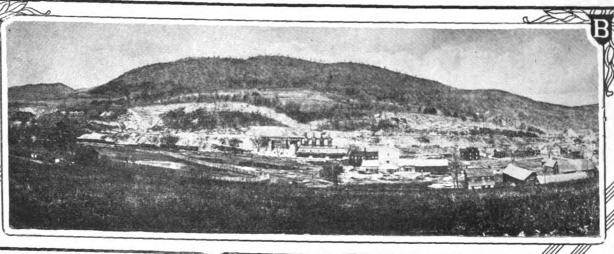






State Fish Hatchery





College Campus

mothers of the operators might have an insight into the manner in which their daughters work as well as the comforts which have been provided for them by our Company. Invitations were extended to the mothers and sisters of the operators for "Mothers' Day," on May 14, between 2 and 4 P.M. To our surprise this invitation was ac-

cepted by fathers and brothers also.

A reception committee, composed of J. T. Harris, Traffic Supervisor; S. B. Watts, Local Manager; Miss Harriet McCleary, Chief Operator; Miss Mary Cummings; Miss Laura Revnolds; Olin Herr, Service Inspector, and W. I. Laubenstein, Chief Clerk to Local Manager, received the guests and thoroughly explained to

them the entire system of handling calls.

After the guests were shown through the building they returned to the lunch room, where each guest received a pink carnation with their refreshments.

The mothers were especially interested and pleased with the modern equipment of the lunch room and retiring room. In fact, all the comments of the visitors were most favorable, and they left delighted with the afternoon's entertainment.

The members of the senior class of Wilson College, Chambersburg, visited the local exchange as the guests of Local Manager Overpeck. The forty students were so intensely interested in the workings of the switchboard that it is the intention of the college faculty to make the visit an annual affair for each succeeding senior class. An invitation was also extended to the Princi-

Limestone Quarries at Bellefonte

pal of the Technical High School, Harrisburg, to have the senior class of that school visit the exchange and central office. As a consequence, the Principal, Professor of Physics, and fortyone seniors were conducted through the exchange while the operation of the plant was carefully and thoroughly explained to them. A letter was received from the Principal expressing his appreciation of the courteous and painstaking treatment his party received.

Reading District

The following are a few of the questions which the Information Clerk at Reading is called upon to answer:

One subscriber asked whether the Information Clerk knew where he could get "chop suey." His friend has a delicate stomach and was advised by his physician to partake of this delicacy.

Another person told the Information Clerk he wanted to talk to the traveling salesman who lived on the hill at West Reading. The subscriber could furnish no other address, nor could he give the salesman's name or any other information concerning him.

Another subscriber wanted to know if it had rained at Wernersville, and if so, what was the condition of the roads, as he did not desire to make the trip if they were muddy.

One of the exhibits of the window display at the Lebanon business office consisted of an attractive card from which was suspended a telephone directory of the Reading District. Announcement was made that the summer issue

would be placed in the hands of the printer by May 8. A visitor noticed the card and, having been energetically canvassed for service, was considering having telephone service, but was very anxious to know whether his name could still be listed. On being assured of this, an application was signed on the spot.

Scranton District

The A. T. & T. Company has closed a contract with the Paul Lambert Company, Buffalo, for a Morse wire from Buffalo to Easton, Pa., with drops at Syracuse, Watertown, Utica, Oneida, Rome, Binghamton, Scranton, Pittston, Honesdale, Wilkes-Barre, Hazleton, Allentown, Stroudsburg and Easton.

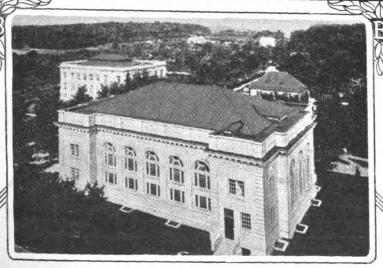
The Y. M. C. A. of Scranton has inaugurated a novel campaign to raise a fund of \$170,000. The association has had installed two direct lines in addition to the regular P.B.X. service. The telephone number, 170,000, which corresponds with the amount of money they want to raise, will be widely advertised and impressed upon the minds of the public.

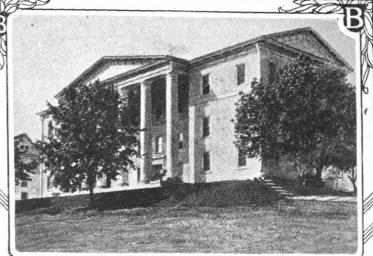
SMITHING.

Williamsport District

The Renovo central office has been moved to the second floor of the Welsh Building, corner of Huron Avenue and Sixth Street, at which place the Western Electric Company recently completed the installation of a No. 9 multiple switchboard with a capacity of 300 lines.













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Since the first of the year we have installed in the Coudersport District 48 multiparty stations, which will soon be increased to 65-not a bad record for Potter County.

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Greater Wilkes-Barre Industrial Exposition

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Practically every industry in the Wyoming Valley was represented, and the majority had working exhibits. In addition there were several demonstrations that were also of especial local interest, such as the first aid to the injured methods of the United States Bureau of Mines and a wireless telegraph station in operation. An exhibit that particularly attracted the attention of the telephone men showed wire drawing and braiding machines in operation. Among all these exhibitors the Bell telephone booth occupied the most conspicuous place at the show. It faced the main entrance and was considered most artistically decorated, with its twelve Blue Bell shades.

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Over 45,000 pieces of advertising matter were distributed by our Company, including 20,000 Blue Bell bangle pins and 15,000 colored picture postcards. The booth was attended by the Wilkes-Barre salesmen, who secured ten applications and a very large number of good prospects. SHAFER

For other Wilkes-Barre news see next page

The Osceola Mills Fire Altoona District

A disastrous fire which occurred at Osceola Mills, May 20, brought to light new heroes in the Bell organization. This fire destroyed the greater portion of a block in which our central office is located, and at several times it seemed impossible to save our building. Local residents, with kind thoughts, disconnected and removed the entire equipment of the opposition company, and then came to our office to do likewise. Our Philipsburg Plant man, however, who arrived within half an hour after the fire had started, refused to allow the switchboard to be taken from the building until he gave the word, and stood guard over it so that our service might not be interrupted. Several times the roof of the building caught fire, and at these times he left his post to go to the roof and extinguish the flames. The fact that this employee was so cool-headed resulted in our being able to give service as usual, with the exception of those telephones to which the lines had been destroyed. Some of the toll circuits were burned. W. F. Carolus, therefore, climbed a pole and thus advised the Altoona Plant Department what would be needed. In the midst of this conversation the pole was burned, and he immediately went to another pole and completed his conversation. Miss Emma Baughman, Chief Operator at Osceola Mills, is another employee who deserves great credit. Although the flames were destroying the buildings around her, she stuck to her position and endeavored to give service, until the cable carrying the toll lines into the building was destroyed. The Altoona Plant Department also comes in for its share of credit. Especially noteworthy is the work of the Altoona Construction Foreman, G. A. Cox. He, upon receipt of news of the fire, immediately organized an emergency gang of equipment and construction men. Automobiles were rushed to the scene and within a short time the poles were replaced, new wires strung, and the entire exchange in service.



Views of the Osceola Milla Fire (See column 3)



Atlantic Coast Division~ JRANDERSON, Division Correspondent

Bridgeton Sub-District

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Camden District

One Camden subscriber wrote to thank us especially for a small refund occasioned by dropping money in a coin-box when the receiver was not off the hook.

WRIGGINS.

Dover District

That the majority of subscribers to telephone service have no idea of what a switchboard looks like, or the methods of operation, was demonstrated recently when a subscriber, while paying is bill at the office, observed the very small Western Union switchboard above the Morse operator's desk, and remarked that he didn't understand how so much business could be done with so small an outfit.

Both he and his wife were invited to see our switchboard, and the workings were carefully explained.

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HENNESSY.

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Another woman, who had been interviewed regarding residence service, was so positive that she would never use our service that the salesman was curious and asked her reason. She said ler husband is in the opposition company's emoy.

West Chester District

In a number of cases in Coatesville the officials of the borough have numbered new houses from our telephone directory. Where residents in new houses sign for telephone service our salesman figures out the house number himself for contract information. The Coatesville borough officials evidently feel that the telephone directories are accurate.

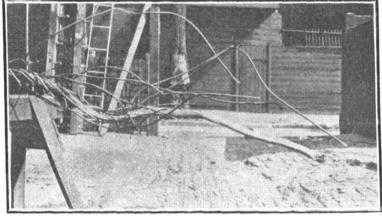
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Digitized by



June 15

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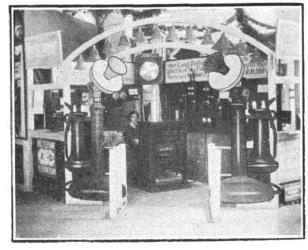
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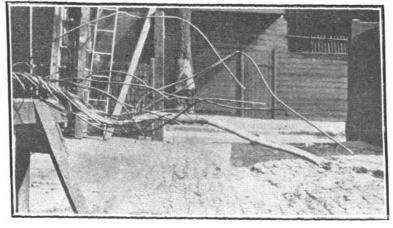
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ittsburgh Division ~ z.z.HUGUS, Division Correspondent

Butler District

The Butler Business Men's Association, on the front page of its Monthly Bulletin for May, used cut No. 30 with the following:

"USE YOUR TELEPHONE Ask Wood,-He Knows

"The objects of this association shall be to foster, protect and promote the interest of its members.

"It is manifestly impossible to protect your interests unless you call us. We combine the experience of members to guard against imposition and fraud. The information is here; you can get it quickly over the telephone. Getting this valuable information may mean dollars in the cash register, instead of bad accounts. You pay for this information. It is yours; use your telephone Bell 488."

A subscriber in the New Kensington Sub-District called the Manager's office and stated that he did not want the telephone connected on the same line on which a minister was served. He further said that the minister was a quiet sort of person, but someone else used that telephone so much that it was monopolized.

While the demand for party line service is on the decline the following conversation between two of our subscribers' children sets forth an-

other use to be made of this class of service:

"Let's play house," said Marjorie, "and we'll pretend you are the telephone man."

"All right," agreed Elmer. "What kind of a

telephone would you like to have in your house?" "I want a party line."

"Wouldn't you rather have an individual telephone?"

"No, I must have a party line, because I have to make arrangements for so many balls and receptions.

A new private branch exchange switchboard was recently installed by the local Plant Department in the office of the Rochester & Pittsburgh Coal and Iron Company at Punxsutawney to replace an obsolete style of equipment which had been in service for a number of years.

The subscriber is a subsidiary company of the B. R. & P. Ry. Co., and the officials were greatly pleased with the satisfactory manner in which the work was handled, the change being made without interruption of service.

A new applicant for service called the Butler business office, a few days ago, requesting that a telephone be installed as promptly as possible. He stated that recent sickness in his household had shown him how much he needed a telephone. WARRICK.

Johnstown District

Two additional toll positions have been "cut in" at Johnstown. They are equipped with fifteen pairs of full universal cord circuits, equipped with universal monitoring keys. At these two positions forty answering jacks were installed and all toll lines now terminate here instead of terminating on five positions as heretofore. This has simplified the work, inasmuch as formerly all toll, outgoing, incoming, relayed, etc., work, which was handled indiscriminately, is now segregated. All the incoming work is handled at two positions. All outgoing toll work from connecting and toll stations is handled at another position. At an-

other position all delayed tickets are handled. Out and in A. T. & T. work is handled at another position. Recording work is done at one position, while the other three or four occupied positions handle all outgoing business. Since traffic has been divided as outlined above, a greater efficiency has necessarily been obtained. This makes a total of eight positions in the Johnstown exchange.

The Greensburg Local Manager was hailed by one of the rural subscribers on Main Street. He told the Manager that he was glad a certain woman had had her telephone service discontinued, as she was causing disturbances on the line, and he added, "I know it was she, because I could hear her rooster crowing every time I used the line." The Manager asked him how he knew it was her rooster that crowed. said the farmer, "I know his voice."



Greensburg, Pa., Window

The J. L. Stehle Company of Greensburg is mailing some attractive advertising matter urging customers to take advantage of the opportunities offered by the telephone and parcel post. It is illustrated by one of our five-inch cuts of a desk telephone.

A woman of ninety subscribed for telephone service at Johnstown a few days ago. This is but a single example of the considerable extension of the age of efficiency creditable to the tele-phone and other twentieth century time- and labor-savers.

The Stoyestown (Pa.) exchange was cut out on May 1, and all subscribers are now connected with the Boswell exchange. A large multiparty development is expected within the next few SMITH. months.

New Castle District

The baseball team representing the New Castle Telephone Society is anxious to arrange games with any other telephone baseball teams in The Central District Telephone Company's territory. For games, address H. A. Brown, Manager Baseball Team, New Castle, Pa., in care of the Company. Our team is making a good showing in the New Castle Twilight League.

The Company's exchange at Exposition Park, Pa., was opened on Memorial Day. This park is located on Conneaut Lake, a rather large inland lake in the northwestern part of the state, near Meadville. Our exchange at this summer resort will serve fourteen or more subscribers and toll

The Westford Independent Telephone Company, a prosperous connecting company of Westford, Mercer County, Pa., will extend its system

to Jamestown, Pa., where it will soon open an exchange of 90 subscribers. To take care of the increased traffic our Company will establish another circuit between Greenville and Jamestown, This company receives Bell service through our Greenville exchange. HARPER

The Highland Chief Operator, Pittsburgh, received the following letter from Springfield Ohio:

"I want to write to the party that has your phone, or did have it (Highland 1952); who has or had a small furniture repair place on a street that runs parallel with Penn Avenue, in the East End. I do not know the man's name, but I owe him a sum of money and want to write to him."

The information was promptly furnished.

The Commercial Department received this communication from the manager of a small trunk company who has evidently never been bothered by night-school work in English:

The Central District Telephone Co. City

Gentleman:

We tack our Plaser and we corected The Bille of amon \$5.65 on Stad \$5.90. You Have a Statement in This Billie for a cal to Wampum Pa 25 cent no Badie whas calling From us to Wampum Pa But a party whas cal us By Phon and we wille not Pay Their Bills and we Believe That The Co. Have no Right to mack us To Pav This Bille we Have 250 acents in The contract and eac of our customer wille gave us orders By Telephon and The wille say Charge to us. The can mack Bills For Ten dolars a day and For That rison we wille not pay The 25 Cents one less you sohw us. The nam 4 That Party whas calle us From us To Wampum Pa. ay am The only man what ay Have to do whit our office and ay say That no baddie cal From us To Wampum Pa But a Party whas cal us By Phone From Wampum Pa and Gave us a order by Phone and we don't want to stand That

Yours Truly

Uniontown District

The Rostraver Telephone Company, Plan "A," with eight subscribers, was organized recently, connecting with the West Newton exchange, thus opening a section which heretofore has not had telephone service.

The Connellsville-Springfield Telephone Company, with seven subscribers, connecting with Connellsville, has also been organized, giving Bell service to a section which was previously served by the opposition.

The headquarters of Plant Chief R. T. Mc Kinney of this district have been moved from Charleroi to Uniontown.

A Uniontown subscriber called at the business office the other day to pay his account in full to date and at the same time give notice of his removal to Pittsburgh. The Cashier noticed that



Tanki Service Bureau, Office and Plant, 233 Fifth Avenue, Pittsburgh, P. Reduced Reproduction of Blotter Distributed by

Pittsburgh Subscriber

the amount of twenty-five cents had been deducted and asked the reason for the shortage. The subscriber replied that about four years ago, when he contracted for Bell service, the telephone was installed two days before the first of the month, that he had been billed and had paid twenty-five cents for this time, and that he had considered the charge unjust, and in making final settlement wished to be reimbursed for that amount. The question was soon settled.

Local Manager Mansfield has just closed a contract with Hartley's store at Fairmont, W. Va., for the installation of a private branch exchange.

The president and managing editor of the Fairmont West Virginian were shown through the Fairmont central office and a special effort made by the Manager to explain thoroughly the operations and policy of the Company. As one result, a long complimentary write-up appeared in the daily paper.

Wheeling District

Practically all business in the city of Parkersburg, W. Va., was paralyzed for almost an hour and a half when the gas supply was interrupted shortly before 11:30 on the morning of the 5th. The power for the Interurban Railroad Company, which is generated from gas fuel, was shut off, consequently all lights in the city and the big pumps at the city water station refused to work. In fact, because of the electric power plant being "shut down" all public utilities were out of commission except our Company, whose service was not interrupted. As our electric current at Parkersburg is supplied from a storage battery in the basement we were not left at the mercy of a temporarily deficient fuel supply.

The entire calling public used our lines and for a time the local calls were so numerous that Wire Chief Vaughn lent assistance, acting as "Information." He also took down connections. The fact that one means of communication was left them was very much appreciated by the citizens.

Steubenville was due for a ball game—the first of the season—when some one remembered that a telephone had not been applied for. A visit was made to our office with a request for service at

used to carry out a sentence imposed upon a young man in lieu of a jail sentence. This was revoked at the solicitation of his mother, an old woman dependent upon him for support. Each evening for one year he must call the judge by telephone, at an hour when he would likely be in mischief, and make a report—an irksome duty, but how much more pleasing than in jail!

MISS DIEHL.

Growth at North Girard

By H. C. Young, District Correspondent, Erie

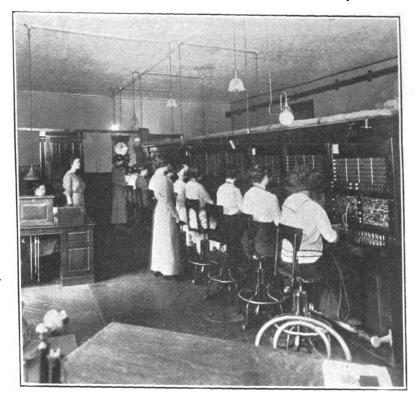
On June 11 our North Girard (Pa.) exchange, which serves subscribers in the territory about nine miles southwest of Erie, had its first anniversary. North Girard, Girard, Platea, East Springfield and North Springfield are in this vicinity.

The preliminary canvass for this exchange was started December 4, 1911. Nineteen days later, when 79 applications for service had been received, the District Manager at Erie forwarded recommendations for the establishment of a central office with Class "E" schedule of rates.

The Plant Department soon completed its work, and a few days ago, when the first year had



Fairmont,
W. Va.
Traffic
Conference
and
Central Office
(See articles
under
Uniontown
District)



Our Fairmont (W. Va.) central office and a group of Traffic employees in conference are shown in the illustrations on this page. Important changes are planned here within about a year, inasmuch as our Company has purchased a lot on Monroe Street for the erection of its own building. Quarters are now provided in the Skinner Building, not far distant, for the Plant and Traffic, and in the Watson building for the business office. Messrs. C. W. Morton, Wire Chief, W. V. Briceland, Traffic Chief, and F. K. Mansfield, Local Manager, as well as their able assistants, are deserving of great credit for the conditions which have warranted plans for our new local home.

The senior class of the Morgantown High School accepted the invitation of the Local Manager at Morgantown to visit the central office last week. They had just completed a course in electricity and this visit was of more than ordinary interest to them.

MISS HEPPLEWHITE.

once. "Gee whiz! Sapp, they will be ready to play in a few hours and we just have to get that telephone." They got it. Wire Chief Swaney received the order at 1:30 and the ball park was receiving service at 3:30.

Four communications have been received by our Uhrichsville Manager complimenting the service that the connecting companies in his subdistrict are receiving through their Bell connections. Inclosed were letters received from connecting company subscribers who were of the opinion that they had received benefits a little out of the ordinary and wished to express their thanks.

The territory adjacent to Uhrichsville is traversed by six connecting companies, bringing about a thousand stations in touch with our exchange.

The telephone as a mode of punishment was

passed, there were 250 stations served from this central office. The growth is now so satisfactory that a total of 400 stations is expected within another year.

Toll service is furnished via Erie and Fairview, Pa.

The physical extent of the plant may be judged by its 41 miles of exchange pole line, 2.3 miles of aerial cable, 160 circuit miles of exchange wire, 55 circuit miles of toll wire and 15 multiparty lines.

The growth in this important section of Erre County, due mainly to its excellent service, has made possible the obtaining of approximately 100 applications for service at Albion, Pa., nine miles distant.

The very satisfactory development at North Girard, from nine stations served by a single line to that above outlined, is a source of pride to the local men of all departments. Also, it will take a prominent part in our further telephone progress at Erie.



______June 15

Baltimore Convention of the Associated Advertising Clubs of America

The Chesapeake and Potomac Telephone Company arranged to furnish, during the convention of the associated advertising clubs of America, the most complete and elaborate telephone service that has ever been attempted in a convention of this kind. Individual telephones were installed in every committee room so that the telephone system of the country might be easily accessible to each delegate. Also the speaker, while conducting the convention, had as his companion on the stand, by his side, the telephone. Telephone booths were distributed throughout the hall so as to make the stations convenient for all in any part of the building. Every small detail of the telephone system was worked up with a view to giving quick, accurate and most satisfactory service to every person attending the convention. Special switchboards were installed and soundproof booths distributed over the entire hall, both on the floor and in the corridors.

There were two separate switchboards installed. One of the switchboards was known as the "Convention Private Branch Exchange," connecting all the committee rooms, speaker, bandmaster and officials of the great gathering. The other private branch exchange was located near the main entrance, with a bank of booths, two operators, and pages to look out for the needs of the public.

The telephone, located on the speaker's desk on the platform, was signaled by the lighting of a small red signal. This was also the case with the telephone located on the bandmaster's stand.

Addresses by Telephone Men

The Westminster Club—composed of officers and heads of departments of the Presbyterian Board of Publication, many of whom are clergymen—held their May dinner meeting at the Poor Richard Club on South Camac Street, Philadelphia.

Mr. F. I. Daly, Assistant Secretary and Assistant Treasurer of the Companies, was the speaker of the evening, and his subject was "The Plan Adopted by The Bell System for Employees' Pensions, Disability Benefits and Insurance."

The discussion which followed gave Mr. Daly an excellent opportunity to speak of the various kinds of welfare work in which the Companies have become engaged, the main subjects being the accident prevention and first aid lectures, and the provisions made for the comfort of the operators.

The members of this club, who have much to do with the influencing of the public mind, asked such questions as were aroused by the evening's talk and were evidently impressed with the Bell plan of caring for its workers.

Mr. A. H. Osterman, Commercial Engineer of our Company, addressed the Telephone Society of Washington, May 15, on the subject, "Some Development Observations."

Dinner to Associate

C. F. Miller of the Plant Accounting Department, who has been transferred to the Pittsburgh Division, was entertained by his friends at a dinner at the Bingham Hotel. After enjoying a very good menu, all wished him success in his new position and then adjourned to a near-by theatre.

Our Societies

The Telephone Society of Pittsburgh

On Saturday, June 7, the second annual blowout of this society was exploded at Olympia Park, near McKeesport, Pa.

As the outing occurred after our June 15 issue had closed to the particulars, we can say only that the word "success" but partially expresses the reward which the committees received. Communications since June 7 have been so enthusiastic that we have thought it best to postpone all particulars until July 1.

New Castle Telephone Society

The last meeting of the 1912-1913 season was held Friday, March 23, 8 P.M., at 31 South Mercer Street, New Castle, Pa.

A review of the society's successful season was given, together with reports from the various committees.

The officers and several members of the society spoke.

Camden Telephone Society

The second annual dinner and jollification of this society, as announced in last issue, occurred at the Ridgway Hotel, Camden, June 7.

The menu provided—from the Oak Creek oysters to the coffee—was characteristic of this hotel

Under the menu items was this quotation from Wolcott:

"Dire was the clang of plates, of knife and fork, That merc'less fell like tomahawks to work."

The toasters were Messrs. E. P. Bardo, R. L. Barrows, A. B. Detwiler, G. E. Gable, C. B. Gallaher, G. D. Heald, H. C. Kunkel, A. B. Marshton, J. M. Repplier and W. Zerman. T. B. McClain, the society's Vice-President, acted as Toastmaster. Significantly under their names appeared this thought from Shakespeare: "What crackers are these that deaf our ears with this abundance of superfluous breath?"

The committee in charge of the event were Messrs. D. W. Figner, W. H. Bottger, W. C. Graffen and E. L. Cox.

The menu cards of heavy brown paper were attractively illustrated in two colors.

A one-stanza verse—parody on "Heidelberg," which appeared on the back cover—was sung with vigor, but not perhaps in a way that would satisfy the Philadelphia society's chorus leader.

The Spare Pair Society

All men in our organization are invited to attend the outing of this society Saturday, June 21, at 2 P.M., at the Pennsylvania Railroad Y.M.C.A. grounds, Forty-fourth Street and Parkside Avenue, Philadelphia. As the covered stand accommodates 2500 and there are no reserved seats, great plans are being made. Tickets will be provided by the committee and sent to the heads of the departments and others for distribution. They may be obtained also from Messrs. W. A. Eipper, Chairman of the House Committee, W. B. Eldridge, Chairman of the Field and Track Committee, or J. H. Babin, Secretary of the latter committee.

For the track events—open only to members—gold and silver prizes have been provided, and lively contests are assured. The visitors will enjoy these events thoroughly. A baseball game, scheduled after the track fun, will bring out material worth coming to see.

Be on hand early and see the men distinguish

themselves. Members are privileged to invite their friends to the field sports.

Blue Bell Musical

The first annual Blue Bell musical and dance was held in Morgan's Hall, Camden, May 13. About 100 couples from the department employees at Camden were in attendance and the affair proved to be a rousing success in every particular.

Music was furnished for the dance by a local orchestra. There was a program of eighteen dances with two intermissions. During the first intermission Miss Daisy O'Brien and Mr. William Smith sang several selections, and during the second intermission Mr. Thomas J. Shay and Miss Harriet Plough entertained the company with songs and piano selections.

The committee in charge of the dance were Misses MacCauley, Ella C. Burke, Elizabeth Hogan and Anna Blahos and the floor managers were C. B. Wriggins, W. C. Culin and Thomas J. Shay.

Rinkedoodle Club

Over forty Company men in and near Philadelphia have formed a club with this classic name. Its purpose is the same as our other societies and clubs. Also, after the meetings of The Philadelphia Telephone Society, it is expected to have dinners at some convenient hotel or restaurant. The first dinner of this kind was held at the Majestic Apartment House, Broad Street and Girard Avenue, after the Metropolitan Opera House show.

On Saturday afternoon, June 21, and Sunday, 22, a trip is contemplated to southern New Jersey to fish. The men will go by train to Bridgeton and will there charter a motorboat to take them to Fortescue, N. J. The fishing trip proper will begin at 4.30 A.M., Sunday, and will continue all day.

The committee consists of H. P. Patchett and Baldwin Edwards, *Traffic*, W. W. Brittain, J. G. Emmons and H. G. Ubil, *Plant*, William Bradford, A. J. Dallett and W. W. Rommel, *Commercial Department*. Mr. Rommel is the chairman

The departments are represented in membership as follows: Commercial 20, Plant 11. Traffic 8, Rights-of-Way 1, Accounting 1, and Publicity 1.

Northern Pennsylvania Telephone Society

The May meeting, held in the Y. W. C. A. Auditorium on the sixteenth, was attended by about 300 men and women of the Wilkes-Barre and Scranton Districts.

The routine business was followed by a musical program which consisted of a number of selections by Scranton Traffic employees. Vocal solos were also rendered by the Traffic employees as follows: Miss Evans, Miss Taylor, Miss Capwell, Wilkes-Barre, and Miss Andrews, Nanticoke, while R. O. Demming, Plant Chief, Wilkes-Barre, played the accompaniment. The entertainment by the employees was a new feature in local telephone work and was immensely enjoyed.

The speaker of the evening was MR. H. F. THURBER, VICE-PRESIDENT, who spoke on the early telephone development in the Wyoming and Lackawanna Valleys and the relation between the public and the Telephone Company from a service standpoint.

After the meeting adjourned an informal reception was held and all the employees present had the pleasure of meeting Mr. Thurber.

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Organization Changes

The Bell Telephone Company of Pennsylvania and Associated Companies

Important Accounting Department changes have been announced effective as of June 1.

J. H. Hons has been made Auditor of our Companies, reporting to the General Auditor.

W. J. McLaughlin remains as Assistant Audi-

tor, reporting to the Auditor.

E. C. Wiley is Auditor of Disbursements, in charge of general accounting and disbursement

C. E. Malley, formerly of Pittsburgh, becomes Auditor of Receipts, 1230 Arch Street, in charge of the revenue accounting work.

The foregoing three men report to the Auditor

in Philadelphia.

Reporting to the new Auditor of Receipts are P. C. Kramer, Division Auditor of Receipts, Philadelphia; C. E. Booser, Division Auditor of Receipts, Harrisburg; and J. H. Boeggeman, Division Auditor of Receipts, Pittsburgh. The titles of Messrs. Kramer and Booser are thus changed, but that of Mr. Boeggeman remains as heretofore.

F. S. Spring, Traveling Auditor, has been appointed Supervisor of Methods in revenue work and A. Silverman has received a corresponding appointment in disbursement work.

Miss A. Sullivan, formerly stenographer, has been made clerk in the Auditor's office, Phila-

Similar changes have been announced affecting both the New York and Baltimore Companies.

Further Organization Changes The Bell Telephone Company of Pennsylvania

- J. M. Devereux, formerly a central office man at Ardmore, has been appointed Wire Chief at Wayne, Pa.-Main Line District of the Eastern Division.
- L. Watson, a draughtsman, has been appointed Chief Draughtsman, Philadelphia Plant Depart-
- F. Tyler, a central office man at Harrisburg, has been appointed Engineering Inspector there.
- W. J. McGinty, a clerk at Philadelphia, has been advanced to a surveyor.
- J. F. Gaffney, a central office man, has been made Installation Foreman at Allentown.
- H. K. Ambler, a draughtsman, has been appointed a conduit inspector at Philadelphia.
- H. F. Sigler, a bookkeeper at Harrisburg, has been advanced to a traveling auditor with headquarters at Philadelphia.

Howard Waters, a Traffic inspector, has been transferred from Philadelphia to Harrisburg.

A. R. Hinkle, a salesman, has been appointed Local Manager, Clearfield, Pa.—Altoona District.

The Central District Telephone Company

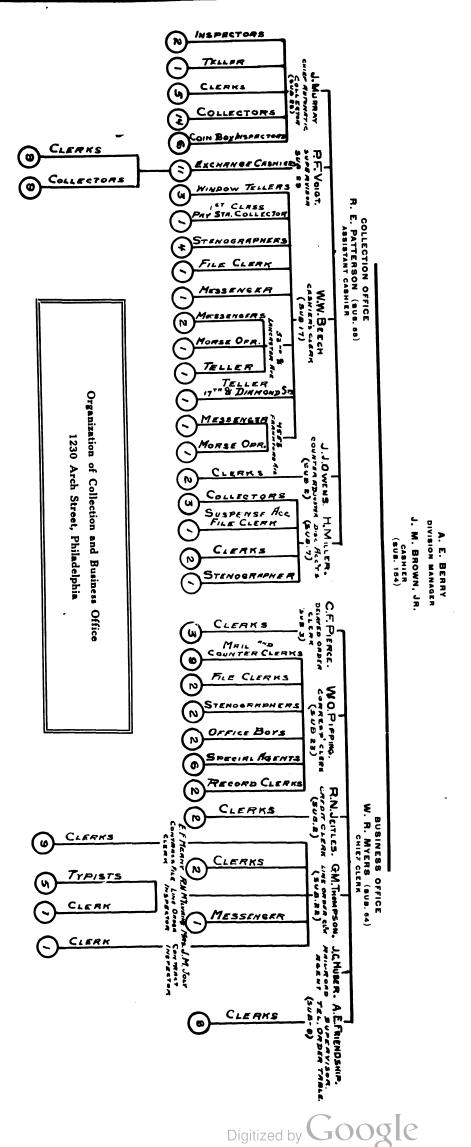
J. A. Magerry, formerly District Equipment Foreman, Pittsburgh, has been made Supervisor of Equipment.

M. B. Harrold, formerly Wire Chief at Greensburg, has been appointed Plant Wire Chief with headquarters at Jeannette, Pa.

J. J. McClain, a clerk, has been made a specification writer, Pittsburgh District.

Train Dispatching

A seven-page illustrated article on "Train Dispatching," by Mr. J. C. Johnson, Superintendent of Telegraph of the Pennsylvania Railroad Company, appears in Telephony of May 24.



Mr. J. H. Hons, Auditor

The Bell Telephone Company of Pennsylvania and Associated Companies

R. JOHN HENRY HONS, who became Auditor of our Associated Companies, June 1, has had a long experience in telephone and telegraph service. Beginning as an inside messenger of the Western Union at 195 Broadway, New York, March 5, 1888, he soon aspired to a position of greater responsibility and, after three months, passed the test for a Morse operator. An opportunity developed with the Postal Telegraph, and for two years Mr. Hons acted as operator for that Company. On June 10, 1895, Mr. Hons entered the employ

On June 10, 1895, Mr. Hons entered the employ of the New York and New Jersey Company as Assistant Voucher Clerk at 16 Smith Street, Brooklyn. Three months later the "Assistant"

part of the title was dropped.

Appointed General Bookkeeper at 81 Willoughby Street, Brooklyn, April 1, 1905, he served in that capacity until the New York and New Jersey Company was taken over, February 1, 1908, by the New York Telephone Company. He then became Division Auditor of Receipts in charge of the Long Island Division. To this territory was added the New Jersey Division, January, 1, 1909.

When the closer union of the Companies in the Eastern group was effected, March 1, 1911, Mr. Hons was made Division Auditor of Receipts of our Associated Companies, with offices at 1230 Arch Street, Philadelphia. This position he held until June 1, when, after eighteen years of telephone accounting experience, he became our Auditor.

Mr. Hons was born in the city of New York, January 19, 1874.

Changes in Certain Technical Terms

Effective June 1, 1913

NIFORMITY in the use of technical telephone terms by the different operating Bell Companies is very desirable for the convenience of the general officials and of Public Service Commissions that are compelled to deal with two or more Bell Companies. To this end the following changes in the use and definitions of certain terms are adopted:

Base Rate Area (formerly known as "Initial Rate Area"). A specific section of a central office district within which schedule rates for local service apply without exchange line mileage or special rates in lieu of mileage.

Base Rate (formerly known as "Initial Rate"). A schedule rate for any form of exchange service exclusive of mileage and additional equipment charges, applicable within a specific section of a central office district known as the "Base Rate Area"

Exchange Line. Any line directly or indirectly connecting an exchange station with a central office. Exchange lines are subdivided as follows:

(a) Central Office Line: A circuit directly connecting an individual or party line main station, a private branch exchange switchboard, or a No. 2 P.B.X. intercommunicating system with a central office.

(b) Extension Line: A circuit connecting a main station with an extension station, or a circuit connecting a private branch exchange station

with a private branch exchange switchboard.

(c) Tie Line: A circuit connecting two private branch exchange switchboards for the purpose of intercommunication between the stations connected with and in the immediate vicinity of such boards. The circuit is not intended to provide for general exchange service through either of the private branch exchange systems with which it connects.

Exchange Station. A station owned by the Telephone Company and connected directly or indirectly with a central office of the Company over its own lines.

(a) Main Station: A station directly connected with a central office switchboard by an individual or party line circuit.

(b) Extension Station: A station connected with a main station either directly or through some switching device other than a private branch exchange switchboard.

(c) Private Branch Exchange Station: Any



Mr. J. H. Hons

station (including the operating set or sets) connected directly or indirectly with a private branch exchange switchboard..

Exchange Line Mileage (formerly known as "Excess Exchange Line Mileage"). The measurement applying to that portion of a central office line extending beyond the base rate area, for which an annual charge is made in addition to the base rate for exchange service.

Individual Line (formerly known as "Direct Line"). A central office line designed for the connection of one main station only.

Service Line (formerly known as "Rural Line"). A circuit owned and maintained wholly or in part by an association of farmers or others located in sparsely settled communities, by means of which service is furnished from a central office or a toll station of the Telephone Company.

Service Station (formerly known as "Rural

Line Station"). A station receiving service from a central office or a toll station of the Telephone Company by means of a service line.

Transmitter Arm (formerly known as "Extension Arm"). A mechanical device used in connection with a regular desk set or its equivalent, and consisting of an arm extending over the top of the desk. It is fixed at one end to the desk or wall, the other end, to which is fastened the desk-stand equipment or its equivalent, being free to swing over the desk.

Pay-roll Checks vs. Cash Payments

For some time the Company has been increasing the number of its payments to employees made by check and correspondingly decreasing its cash settlements. Two of the main reasons for

the newer method are that checks furnish motives for starting individual saving accounts and simultaneously reduce the risk of loss. An exceptional instance for the latter argument, but a good one nevertheless, occurred a few days ago in Philadelphia.

An employee, who had been paid by check, left it at home when he changed his clothing. Returning a few hours later, he found that the house had been robbed and his check was gone. He notified the paymaster and payment on the check was stopped at the bank. The employee received another check promptly, and is still congratulating himself on the fact that the original payment was by check rather than in cash.

Piano Music by Telephone

W. R. Lenox of the Philadelphia Plant Department has told us of a use for the telephone which, while not new, is interesting.

A subscriber living near Thirtieth Street and Lehigh Avenue, Philadelphia, had a visitor who played an exceptionally fine piece of music. The subscriber was so enthusiastic over the finished rendering that she desired her sister in Lansdowne to hear the selection. This she accomplished by calling her sister on the telephone and then placing the instrument near the piano. As a result the music was distinctly heard in Lansdowne, a distance of eight miles, throughout the twenty minutes that the piece required.

Long-Distance Ceremony

Queen Mary of England the other day ceremonially opened the Hospital for Children at Weston, Ontario, four thousand miles away from where her Majesty "touched the button." By signal, the British Queen was informed that all was ready, and by return signal the hospital doors were opened in Canada. The message was received and acknowledged in one-quarter of a minute.

A Boy's Invention

A nineteen-year-old boy has invented a device to make it impossible for third persons to hear what telephone users are saying, says the Boys World. It is said also that \$17,000 has been paid for the invention. The device, it is claimed, will also cut out other callers on the same line from getting the operator's attention while that station is in use.

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SUPPLEMENT TO THE TELEPHONE NEWS

Exercise is Necessary to All, but Particularly Valuable to Brain Workers; Careful Selection of Food and Regular Hours of Sleep are Imperative

Personal Hygiene

BY DR. ALVAH H. DOTY

Medical Adviser of the Employees' Benefit Fund Committee Plenty of Fresh Air Should Be Allowed to Enter the Sleeping Room; Care Should Be Observed in the Selection of Proper Clothing

PERSONAL hygiene relates to the means by which our individual health is preserved. The most important of these are exercise, proper care of the digestive or alimentary tract, cleanliness, sleep, and appropriate clothing.

EXERCISE

Exercise is essential to health in many ways. It aids in securing good digestion, proper sleep, and helps to maintain the activity of the various functions of the body. Without it the lungs are not properly inflated, and are far less able to resist the attack of certain diseases which commonly affect these organs, for instance, tuberculosis; besides, various parts of the body when not properly exercised become diminished in size and importance.

While exercise is necessary to all, it is particularly valuable to the so-called brain workers, who during the day and very often at night are engaged in work which constantly calls for increased activity on the part of this organ. To provide for this a greater supply of blood is required. If this is continued over many years the smaller vessels of the brain become dilated or stretched, and later in life may cause serious results. However, long before this change takes place a warning is given of an overtaxed brain in the form of headache, dizziness, faintness, and various forms of nervousness, which frequently affect the class of people referred to above.

Proper exercise relieves this overcharged condition of the brain by drawing from it through the activity of the muscular system the excess of blood. Other overworked organs, particularly those of the digestive tract are similarly relieved by exercise. Upon this simple method of adjusting the circulation largely depends the preservation of our health.

Walking

Walking is the natural and proper means of obtaining exercise, and is superior to all other methods. While horseback riding, rowing, and tennis are exhilarating and healthful, and although the gymnasium and innumerable other means of exercise have their uses, none secure the permanent benefit obtained by a daily walk in the open air, nor should they be accepted as substitutes for this.

The game of golf which in late years has become so popular in this country, is practically walking made pleasant and interesting, and there is probably no method of exercise ever practiced which has contributed more to the repair of health of those who have overtaxed their brains and digestive tract than this game; furthermore, it is suitable for anyone.

The substantial benefits obtained by walking depend chiefly upon the regularity with which it is performed. A walk of from four to six miles daily may be regarded as a fair average for an adult, and the result is far more effective when the distance is covered at one time. A good even pace should be taken, although it is not needed that one should walk too fast. The shoulders should be erect, and full respirations should frequently be taken. The value of expanding the lungs and thereby insuring full ventilation has already been referred to in a previous article.

It is not proper that a long walk should be taken immediately after a full meal, for at that time an increased quantity of blood is needed for digestion, and too much exercise may interfere with this important act.

Those who are constantly under mental strain often experience a sense of fatigue, this is as a rule a mental, and not a physical condition, and the proper remedy for it is exercise in the open air and not rest.

DIETETICS

The importance of protecting the digestive or alimentary tract from improper or too much food has already been referred to. Plain, simple, and easily digested articles of diet constitute the normal and healthy means of securing nourishment, without injury to the organs concerned in this important function. The value of this form of food and the absence of trouble in connection with its digestion has been clearly demonstrated. Advanced civilization has to a great extent destroyed this simple habit, and has substituted a desire for rich and fancy dishes, which is an acquired taste and is dearly paid for in more ways tnan one.

Coffee and Tea

The subject of coffee and tea, their advantages and disadvantages, is so frequently discussed that it requires no special comment here, save to state that while these stimulants may be taken by adults in a reasonable amount without injury, it is neither healthful nor proper that children or young people should become addicted to their use. They are positively injurious at this age, for they not only impair digestion, but lead to various forms of nervous trouble which are difficult to overcome, the unpleasant results of which may be traced in after life.

Cleanliness

Cleanliness of the person is not only necessary, but it is also pleasurable to those who practice it. The skin through its millions of little ducts is constantly discharging waste matter from the body. As

a means of protection its surface is supplied with an imperceptible coating of fatty matter, and a scaly layer. If these various substances are not promptly removed, they decompose and become offensive, and the skin is not only unable to perform its function properly, but may become roughened, irritated, and in some instances intractable forms of skin disease may follow.

The skin cannot be properly cleaned unless there is a free use of soap in order that the greasy substance may be saponified and the surface well cleared of all waste matter.

Bathing

The frequency with which a person should bathe to secure cleanliness, depends largely upon the character of work which is performed, climatic conditions, etc. Except in very warm weather two good baths a week are usually sufficient for this purpose. These should be taken warm and just before retiring, for as the skin is more susceptible after a warm bath, immediate exposure to the outside air might be followed by unpleasant results.

Among those who have received early training in this direction, or who observe special care of their person a daily bath is taken upon rising. This usually consists of a cold sponge, shower, or tub bath, depending on selection, or the facilities which are available for each person. Their value and invigorating effect depends upon the susceptibility, health, and age of the person, for everyone is not similarly affected. If the bath acts pleasantly there should be a prompt reaction, i. e., the shock which occurs when the cold water comes in contact with the skin, and which for the moment diminishes the amount of blood on the surface of the body, should be quickly followed by reaction, and a healthy glow of the skin, particularly if a towel is briskly used. If the reaction does not occur, or if the bath is followed by depression, or weakness, this method should be discontinued.

A cold sponge or shower bath is less likely to cause unpleasant results than a cold tub bath, for the latter is far less stimulating, and the tub is better adapted for the warm cleansing bath. Many even in health, cannot upon rising take a cold bath without considerable shock, for at this time the circulation is less active, and the supply of blood to the skin is somewhat diminished in amount, and therefore less able to protect against the sudden reduction in temperature. This may be overcome, and the shower bath rendered even more invigorating, by first using a shower of very warm water for a half a minute or so; this brings the blood quickly to the surface, then as a rule the cold water may be turned on with the most satisfactory results. This form of bath has additional value, for by keeping the superficial blood vessels of the

at altitudes above the ground of from six

(Continued on page 12)

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skin well stimulated it goes far to prevent catching cold.

Turkish, Russian, and various other forms of baths which are extensively recommended and advertised, are not essential to health. They are pleasurable to many, and in certain physical conditions may be of some special value, but they cannot be used with impunity and are often injurious, particularly to those who have organic trouble or who are advanced in years, besides, they offer practically nothing which the simple methods of cleanliness already referred to do not provide for.

Sea and fresh water bathing are for pleasure rather than cleanliness. Those who delight in this form of bathing commonly remain in the water too long, and in various ways suffer from it. Open air bathing is not without danger to those in feeble health or who are advanced in years, besides, they should not be indulged in for at least two hours after eating. The "cramps" which often occur while bathing, are probably in many instances due directly or indirectly to interference with the process of digestion which may be active at the time.

TEETH

The care of the teeth is an exceedingly important factor in the preservation of health, for aside from the unpleasant odor and appearance associated with decay, imperfect or a diminished number of teeth sooner or later lead to impaired digestion. The public are not aware of the seriousness of this condition, or the frequency with which defective teeth are found. A recent report of the dental clinics in New York City show that of 1,694 children examined, only 11 of them were found to have normal teeth. If this condition occurs in children, what may be found in adult life? It at least clearly indicates the necessity for a most careful consideration of the subject.

The teeth should be thoroughly brushed e, with a metiff brush, for ticles of food.

The teeth should be thoroughly brushed e, with a metiff brush, for ticles of food rpose may be at any drug which is quite

mouth should morning with tion of salt or reter of a teass of water; lge more fully natter. Great use artificial substances is

substances is ch as lemons, ct of these may bicarbonate of

per process of NDS

The feet and hands must also be carefully looked after. In the regulations of the various armies throughout the world, may be found the most minute instructions as to the care of the former, for if they are not in good shape, soldiers may become unfit for service, if their marching

ability is impaired. Carelessness in this direction occurs largely because the feet are not exposed to view, and for the same reason cleanliness in this direction is often not practiced. Care of the feet in childhood usually insures a shapely foot in the adult. Corns, bunions, ingrowing nails, etc., should be dealt with promptly. Tight and ill-fitting shoes must be guarded against, and stockings frequently changed. The feet should be daily cleaned with soap and warm water, and then douched with cold water and very carefully dried, particularly between the toes.

between the toes.

No detail of personal hygiene makes so favorable an impression as clean hands and well trimmed nails. A nail file may be purchased at a very low price at any of the department stores, and the vigorous use of the nail brush two or three times during the day is all that is needed for this purpose. The nails may be very satisfactorily polished with the palm of the hand upon which is placed a little powder to create friction. The care of the nails is not only for appearance sake, for if not properly attended to, they accumulate germs, and may act as media of infection.

SLEEP

Sleep is the natural means of securing rest, both for the body and the mind. The number of hours required for this purpose, as in other matters relating to personal hygiene, depends largely on the occupation and general condition of each person. Those who are actively engaged in brain work or physical exercise, need more sleep than those of sedentary habits. No definite rule can be followed as to the time required for this purpose, although in a general way it may be said, that adults should have from six to eight hours' sleep during the twenty-four hours, and children much longer. Sleep should be taken at night, and as near as possible at the same time. Sleeplessness or insomnia is a very common affection, but is far less difficult to deal with if a little study is given to its cause.

Insomnia

Nature will supply sleep unless there is something to prevent it in the way of ill health or some transient cause in the shape of worry or excitement. Therefore if insomnia exists, it should be our object to ascertain its cause and treat it, rather than to deal with the insomnia itself. Nothing is more injurious than a resort to drugs for this purpose, for medicines which produce sleep usually weaken the heart and depress the general system, and in various ways may delay a return to the normal condition of health which is the object in view; furthermore the use of drugs to produce sleep leads to a dangerous and pernicious habit, and too much cannot be said in condemnation of the innumerable remedies which are advertised for this purpose. A person who suffers from insomnia for a protracted period is not in a normal condition of health and should consult a physician, and not resort to the use of the so-called sleeping agents.

Fresh Air

During sleep, the heart and lungs are less active, and under these conditions it is essential that the diminished amount of air taken in should be as fresh as possible, and it is for this reason that benefit is derived from open windows during sleeping hours,

or even better, the habit of sleeping in some outside apartment, or out of doors. It may be added that while plenty of fresh air should be allowed to enter the sleeping room, draughts must be avoided in order not to catch cold, and while the head is exposed, the body should be kept warm. A hard mattress is far better to sleep upon than a soft one, and the feather bed should not find a place in any home. While the sleeping room should be freely exposed to the outside air, the dressing or bath room should, if possible, be comfortably warm, in order that the exposed surface of the skin may not be chilled.

CLOTHING

The need of clothing is so well known that only reference will be made to the relative value of the various articles used for this purpose. The material commonly employed in the manufacture of clothing consists of linen, cotton, wool, silk and fur. Both cotton and linen are good conductors of heat, i. e., the warmth of the body passes quickly through these fabrics to the outer world. Therefore in cold weather they do not offer the protection extended by wool and silk, which are poor conductors of heat. Neither cotton nor linen are as "hygroscopic" as wool and silk, i. e., they do not absorb water and give it off as slowly, but quickly lose it by evaporation. A very familiar example of this is when cotton or linen underclothing becomes wet from perspiration in the summer, evaporation takes place so rapidly that the body becomes quite cold, whereas if wool is used, the chilling takes place more slowly. Silk has to a lesser extent the properties of wool just referred to, and it may be used as a substitute if its added expense is not prohibitive. Furs need only be considered as an outside garment for extremely cold weather, and as a common article of clothing in sections of the world where the temperature is almost always very low, its value being duc to its impermeability to cold weather and winds.

Air is also a poor conductor of heat and cold, and for this reason, loosely woven fabrics which contain air in their meshes are warmer than those which are closely woven. Two or three layers of clothing are warmer than one of equal thickness, because the air which is a bad conductor is between the various layers. This will also explain why a number of sheets of newspapers wrapped about the body is a very valuable protection against the cold, and may be used in emergencies for this purpose.

The subject of clothing must not be dismissed without reference to the dangers which follow the continued use of garments which improperly constrict various parts of the body. If those who are addicted to tight lacing could see the misplaced and distorted internal organs which are revealed by the X-ray, and which are the result of this habit, there would undoubtedly be some reformation in this direction.

While the means above referred to are generally regarded as the most important details in the preservation of individual health, there are many other ways by which a person through proper habits can contribute to his well being. Fortunately, these various measures are neither difficult nor unpleasant to carry out and are applicable to any walk of life. Therefore, the preservation of health is largely in our own hands.

getting the operator's attention while that station is in use.

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THE TELEPHONE NEWS



VOL. IX

PHILADELPHIA, PA.

JULY 1, 1913

No. 1:



Pittsburgh's 1913 Outing

By Z. Z. Hugus, Division Publicity Manager, Pittsburgh

JUNE seventh was the big day for Pittsburgh and the crowd west of the Alleghanies—the day for the Pittsburgh Society's annual picnic, and it "came off" with a grand eclat.

Last year the "Western" employees were highly enthused over the success of their outing—and they had reason to be. It was their first such affair and they thoroughly are the success.

oughly enjoyed it.

But if you looked at the 1912 one even through a high-powered glass that magnified it many times in all ways, you might form some conception of how the 1913 outing was "exploded." It has come to be an annual event for the Pittsburgh Division people, and they half its coming with the

hail its coming with glee.

Every detail was planned with unusual care, the committees performed their work so completely that there wasn't a hitch anywhere, and the whole affair was tremendously smooth-run-

A week before the picnic, twelve-page booklets came out telling the story. Posters went up on the bulletin boards, and everyone began to talk picnic.

(Continued on page 2)

Centralized Testing of Cable Trouble*

By A. J. Egan, Cable Division, Philadelphia

HE feasibility of locating the cable trouble in a plant as large as that of Philadelphia from a central point was, I believe, first suggested here in the East by the Supervisor of Construction, Mr. James Cunningham. The first step towards putting this idea into

*A paper presented before The Spare Pair Society, Philadelphia.

(Continued on page 3)

A Farm with Monitor Switchboard Service

By Belford A. Lore, District Correspondent, Bridgeton, N. J.

NTENSIVE market gardening has of late become interesting not only to the producers themselves, but to those city dwellers who have acquired the habit of absorbing Frederick W. Taylor's ideas of scientific management. A sale of monitor switchboard service, with five sta-

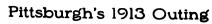
board service, with five stations, for use on a farm located four miles north of Bridgeton, N. J., calls attention to a farm managed rather unusually. Its elevation, soil

and climatic conditions make the Seabrook Farm, as it is called, peculiarly fitted for raising practically all of the vegetables required at the nearby markets.

Study of Conditions

The results obtained here are due to continued study of the markets and of the conditions to be met. South Jersey soil is generally understood to be sandy and lacking in loam. Here, the nature of it has been changed by cultivation and by frequent irrigation. Through sprinkling pipes, permanently placed in long parallel rows, at altitudes above the ground of from six

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(Continued from page 1)

When the day finally did roll around, the weather alone was not on the Telephone Society's side. Early in the morning it rained and all day long threatening clouds hung in the sky, shutting off the sun. The weather undoubtedly kept many away, but for those who came it had little disappointment.

Unfortunately, due to the unfavorable weather conditions, The Telephone News was unable to

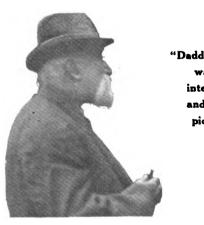
get the photographs it desired.

Central District Telephone, A.T. & T., Western Electric and Western Union employees were all represented in vast profusion; in all about two thousand persons enjoyed the day.

The Place Chosen by the Committee

Seventy-six acres of good wholesome country land, laid off into a pleasure ground and embellished with all sorts of amusements, provided the park ideal. The owners had evidently spent much money in keeping the park in shape. Beautiful groves for lunching parties, picturesque walks, a lake, excellent baseball ground, tennis courts, were there; in fact, nothing was missing.

Two special trains were obtained from Pittsburgh. One left at 10 A.M. and the other at 1 P.M. Any employee who could possibly be spared from his work was given the opportunity to go to the outing. Naturally, Pittsburgh had the largest contingent, but from southern West Virginia to northern Pennsylvania employees assembled, and the crowd was truly representative of the entire division. Messrs. LaRoche, Lynch and Hons graced the occasion with their presence and they all reported having had a bully time. Mr. Terry, of the Western Union, came over to umpire a baseball game, and the way he handled the indicator was a model for anyone with ambitions as a future "Silk" O'Laughlin.



was an
interested
and lively
picnicker

The Western Union crowd deserves a note of recognition. They were present in force and with their "W. U." arm-bands were quite conspicuous,—very much so when their baseball teain trimmed Pittsburgh Traffic, 9 to 3.

From the time the first bunch reached the park until the last "special" left, late at night, things hummed. Baseball games were in progress all day long. Four of them kept the attention of the "fans," and while there was daylight at all there was baseball.

The first game, which began at eleven o'clock, was a "crackerjack." Pittsburgh Maintenance defeated the Fulton Building employees, 6 to 5. The score itself bespeaks the sort of game that was played. Nip and tuck it was all the way

through, and those who were fortunate enough to see it witnessed a good game.

Scarcely were the first game's contestants off the field when Pittsburgh and Wheeling, who have been rivals from time immemorial, entered the arena and began their conflict. This year Wheeling triumphed 14 to 10, but Pittsburgh consoles herself with the "I'll get you next year" slogan.

New Castle and Pittsburgh Accounting was next on the bill and staged a real battle, one that bubbled over with real baseball. New Castle was finally vanquished to the tune of 6 to 4, and the Accountants happily romped away.

Just before the day closed, Traffic and Western Union took possession of the field and began their game. The telegraphers sprung a surprise on the operating crowd and walked off with the game—
9 to 3

But don't think baseball was the only sport which Chairman Gillespie's committee afforded—far from it. The baseball games progressed all day long. But while they went on there was a full schedule of races and contests and the like being "pulled off" in another section of the park.

One of the most interesting contests which took place was the cable-splicing race. The job put up to the men was to splice a 50-pair cable. The winner was Benjamin Boch; Bret Hart took second place.

Tugs-of-war are always interesting and draw many exhortations from the spectators. The two contests were far from unusual in this respect, and the enthusiasm displayed made them warmly contested.

Pittsburgh District Construction crews took over the Elsewhere crews and Pittsburgh District No. 1 beat Pittsburgh No. 2 In the former event someone tried to tie the rope around a tree, but the eagle eye of a judge prevented the side from getting away with it.

E. C. Long, the man who last year won the fat man's race, was the blue ribbon winner and displayed speed that would have done credit to a seasoned expert of the cinder path. J. R. Brown, not far behind, captured second prize.

The rope-throwing contest is always a source of great interest. After throwing for quite a length of time, Harry W. Miller was the winner and F. H. Clager took second. Four wires were strung high in the air with intervals of about five feet between them; the energies of the contestants were expended in throwing a rope over the highest wire possible.

D. M. Hackett won both the 100-yard dash and the sack race, also second place in the hop, step and jump. G. W. Cox was second in the sack race and C. L. Gottschalk in the 100-yard dash took second place.

The hop, step and jump was won by Lottis. This event contained a large number of entries and was watched interestedly by the spectators.

The men were not the only contestants in the races. A number of women events were "pulled off," and numerous entries made them very popular among the crowd.

The button-sewing contest was most interesting. The contestants were each given a shirt (without buttons), a button, and a needle and thread. At a given signal the button was to be sewed at the neckband of the shirt handed to a male "accomplice," who ran to a designated point, put the shirt on and buttoned it, then ran back to the starting point. The race was won by Miss Fitzsimmons, and Miss Helmig was second.

A nail-driving contest, the goal of which was to put five nails all the way into a plank, was won by Miss Agnes McGrail. The same young woman greatly outdistanced all comers in the baseball-throwing contest.

The prizes were all good and the committee in charge handled the events in a way beyond reproach.

It is not to be supposed for a minute that athletics alone furnished the amusement of the



Two Pittsburgh-Wheeling Ball Players
District Managers Lawlor (left) and Bates (right)

crowd. The Boys' Brigade Band of McKeesport was out in force, and during the early evening the music which they furnished delighted the crowds.

Beautifully shaded grassy spots made ideal places for opening the baskets. Public open-air dining pavilions were used by those of the picnickers who preferred to have a roof over them.

Olympia Park contains an open-air dancing pavilion, spacious and well appointed. The floor is excellent, so many of the emloyees say; for during the entire afternoon and evening, until the last special train started back down the valley to Pittsburgh, the pavilion was thronged with crowds, who thoroughly enjoyed the good floor and the exceptional music, the latter furnished by a five-piece orchestra.

The park was turned over entirely to the Telephone Society and its guests. Blue Bell bangle pins were distributed and served as a common badge of the outing. One of them had to be on each person before he or she was admitted to the pavilion.

Pittsburgh's Annual Outing has come to be a byword in the annals of the Pittsburgh crowd, and, after the signal success that has attended both of these events, they well can afford to cherish it. Former associates meet, new acquaintances are made, we all come to know each other better, and that helps a lot. When you know White, to whom you telephone several times a day, you're better able to transact your business with him. It's easy for the Companies to see how affairs of this sort actually "prove in on the efficiency column. As for the employees,—well, next year,—we don't boast, but if you know of any bets on the falling off of next year, picnic, tell some Pittsburgher, he'll do the rest.

The judges of the men's events were Mess's C. H. Lehmann, L. R. Brooks, A. H. Meyer, J. M. Griffith, D. P. Linduff, H. L. Badger, J. H.

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Clune, J. H. Boeggeman, S. B. Williams, M. J. Bishop, J. A. Magerry, W. W. Austin, F. T. Ewing, A. E. Beling and W. W. Henderson.

For the women's events these acted: Misses Minnie Jackson, L. Grant, M. R. Logan, Clara Ganoe, Catherine Campbell, Anna Hammerly, Elizabeth Fage, Blanche Watson and Isabel Dear. The staff of umpires were Messrs. E. C. Bates.

F. S. Moran, D. J. Murphy, L. L. Leith, J. K. Martin, H. A. Brown, G. A. Geddes and Jas.

General Chairman, J. H. Boeggeman; Grounds and Transportation, J. H. Moore; Printing and Tickets, Z. Z. Hugus; Music and Dancing, A. Bunton; Sports, Z. C. Gillespie.

Centralized Testing of Cable Trouble

(Continued from page 1)

practice was the calling in conference of the Supervisors of Construction and Maintenance, the Testing Engineer and the Philadelphia Wire Chiefs. The questions discussed at this conference were

- 1. What assistance would be required of the Wire Chiefs and their men in making tests from a central point instead of sending a tester and his helper to the central office?
- 2. Would the outside trouble men and central office men be able to render the necessary assistance without special coaching?
- 3. What equipment other than the testman's usual kit would be required?
- 4. Would the accuracy of tests made in the new manner compare well with the old method?

The tentative plans which had been made by the Testing Engineer were talked over thoroughly with the Wire Chiefs, for it was realized that without their hearty coöperation the proposed scheme would be foredoomed to failure.

There was some slight objection at first to the additional amount of work required of the outside trouble men and central office men in the working out of the proposed plan, but it was finally decided that a month's trial should be given the scheme in the following districts: Spruce, Poplar, Diamond, Tioga, Filbert, Market, Lombard, Dickinson and Kensington.

Since the central testman would need to have all the cable lengths and cable maps of these districts readily accessible, he would necessarily have to be stationed where these records are kept, namely, in the office of the Supervisor of Construction. This office is on the second floor of the building at Seventeenth and Filbert Streets. A 55-pair cable was run from the sixth floor to the second in this building, and terminated at the sixth floor on the Locust main distributing frame and at the second floor in a 60-pair intermediate distributing frame strip. Two cable pairs, test and talking, were picked from the Locust main distributing frame to the above-mentioned offices. These pairs, together with a 24-volt, 48-volt and ringing current tap were looped into this cable. All cross-connections on the testing trunks were made with okonite wire, to reduce as far as possible any chance of low insulation. At the central offices the talking trunks were terminated at the main distributing frame in suitably located jacks in multiple, and the testing trunk in a flexible lead long enough to reach any part of the main distributing frame. This lead was equipped at its end with snaps. In addition each of these offices was furnished a talking set, tone test, condenser, and head telephone with finder. The talking set consists of a breast transmitter and head receiver in series, bridged across a cord terminating at one end in a plug and at the other end in snaps.

The following procedure, it was decided, should be followed when cable trouble occurred:

When the test-table operator of a central office finds that trouble is in the cable, if no good spares can be obtained, or, good spares being obtainable, if the trouble is of such a nature that in his judgment it should be taken up immediately, he holds his outside man at the terminal, tells his main distributing frame man to pick up the outside man, giving him the cable and pair necessary and notifies the central testman through the Filbert 2790 branch of the trouble and its nature. The main distributing frame man snaps his talking set on the pair on which the outside man is calling the central office, and places the plug of his set in the jack of the talking lead, extending to the central testing point. The central testman snaps his talking set, which is the same as the main distributing frame man's, minus the plug, on the terminals of the proper talking lead, and connects his testing set (a Wheatstone bridge) to the proper testing lead. These operations place the three men, the outside man, the main distributing frame man and central testman, in communication with each other. Battery for talking is taken from the wire on which the outside man called his office. A test is then made, and if the trouble is not of a serious nature, and it is required that the outside man visit other terminals to complete the test, the testtable operator is notified. If he cannot spare the man for further work the trouble is taken up later by one of the central testman's helpers, who are equipped with motorcycles.

Line orders, held for spares, due to cable trouble, are handled in this manner. The central testman's helper is sent to the terminal where the line order is held, if the report from the cable or district engineer shows bad spares in the multiple of the terminal. The helper and main distributing frame man, under the direction of the central testman, tap off with tone the terminal and assist in making the necessary location tests. If no spares appear at the terminal, the helper is sent to the central office, where he, with or without the assistance of the central testman, as the case may require, makes a main distributing frame test with a head telephone of all spares in several multiples overlapping that of the desired terminal. The Wire Chief's cable records are then consulted for possible drops, and a sufficient number of terminals visited to confirm them, or to locate trouble, so that drops can be made. Many times in this kind of work the assistance of the main distributing frame man is not required after the first test, the test lead being left on a certain pair and successive tests made from various terminals, the helper calling the testman directly through the branch.

These methods, as outlined above, were followed for a month and showed that one central testman could easily handle the cable trouble of these nine offices with a considerable saving of time and money. Arrangements were then made to connect all the city offices, except Bustleton and Fox Chase, to the central test point. These two offices were eliminated because trunks to them would have to pass through open wire leads, and open wire trunks on wet days are fatal to accurate location testing. Later, Oak Lane, Jenkintown, Ardmore, Bryn Mawr, Wayne, Conshohocken, Norristown and Camden, in the Eastern Division, were connected. The trunks from the less important offices are not brought in all the way to the central testing point, but are multipled to the trunks of some of the offices through which they would otherwise pass.

It was thought at first it might be possible so to arrange the test and talking circuits that only one trunk would be needed to each office, thus halving

the number of cable pairs used, but this scheme was abandoned as impracticable. When some of the more distant offices were connected, the transmission on the talking circuits was so poor that a repeating coil with local battery was cut in on the central testman's talking set. To enable two testmen to work without interfering with each other, another 60-pair intermediate distributing frame strip has been multipled to the first, and placed at a convenient distance from it.

A name for the central testing point which would be exactly descriptive of it and its uses has been sought for some time, but none more satisfactorily than the one at first adopted, namely-'Central Location Bureau" has been suggested. All trouble details originated by the central testman bear the stamp "C. L. B." These letters are supposed to cover a multitude of sins in the testing line, for it was thought at first that C. L. B. locations would have to be taken with a grain of salt. As a matter of fact, over 95 per cent, of all locations made by the C. L. B. are correct, as proved by the returned trouble details. A little difficulty was experienced in the beginning, and still is to some extent, in having the outside men make the necessary connections for a location test. To the average outside man a shunt or a loop has a use only to prove to a test-table man operating a voltmeter the continuity of conductors; but these haphazard connections will not do for the location tester. A shunt or loop for him must be a tight connection devoid of all resistance. Screwdriver, plier and socket-wrench shunts are very satisfactory things to contend with. Every man who is liable to be required to work with the central location bureau should be furnished with an insulated, flexible copper cord at least three feet long with strong snaps at each end. Good connections can be made with a cord of this kind in the quickest way.

Another thing that troubles the central testman is the unfamiliarity of most main distributing frame and outside trouble men with the tone test as used in cable work. This is simply a matter of inexperience and will be remedied in time, no doubt.

Certain cable tests, of course, cannot be made efficiently from the C. L. B. Cross-talk tests, insulation tests, when of any extent, and the testing necessary before and after transfers and loading jobs, are still made in the old way by sending location testers directly to the central offices.

Location tests on open conductors and split cable pairs, where the combined length of the faulty pair and the test lead is more than five miles, have not proved reliable. Since these two troubles form but a small percentage of the cases reported to us, our inability to locate them, except they come within the limit mentioned, does not militate against the efficiency of centralized loca-The central location bureau has tion testing. also been used quite extensively in making electrolytic surveys of various portions of the Philadelphia and suburban cable plant and territory. It is possible now through the use of C. L. B. trunks and a recording meter to make continuous tests of earth potentials which ordinarily would require the services of several meter men.

The work of trouble-clearing gangs has been facilitated to a considerable extent by having constantly on tap, as it were, the services of a location tester to make check tests with them in the course of their work. The cable trouble foreman, Mr. Wood, through his close contact with the central testman, has available for his information all the little details of all the trouble jobs which formerly were distributed in the notebooks of several men. This information (believe me) he never fails to extract to the minutest detail, and

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Centralized Testing of Cable Trouble

(Continued from page 3)

he should be enabled therefore to clear his troubles in the quickest and most economical way.

A record has been kept since September 1, 1912, of the actual cost in time and carfare for locating cable trouble from the C. L. B. and the estimated cost of doing the same amount and kind of work in the old way. From this record the following data have been obtained. It is understood that all figures are averages.

| Subcribers and trunks out of service or | |
|--|-----|
| affected per month | 263 |
| Line orders held for spares due to cable | |
| trouble per month | 61 |
| Special tests per month | 25 |

Under special tests are included tests of bad spares not affecting working lines or line orders, electrolysis tests, and resistance measurements of protection grounds. For comparison, the manner in which these cases of trouble have been covered has been divided into three classes:

Class 1—Those in which the testman was assisted by two cable helpers, one at the main distributing frame and one outside.

Class 2—Those in which the testman was assisted by the regular main distributing frame man and Wire Chief's outside man.

Class 3—Those in which the testman was assisted by the regular main distributing frame man and one testman's helper.

For Class 1 the percentage of all work done was—

| Working lines out or affected | 18% |
|-------------------------------|-----|
| Line orders held | 31% |
| Special tests | |

For Class 2 the percentage of all work done was—

| Working lines out or affected | 18% |
|-------------------------------|-----|
| Line orders held | |
| Special tests | 70% |

For Class 3 the percentage of all work done was—

| Working lines out or affected | .34% |
|-------------------------------|------|
| Line orders held | |
| Special tests | |

The fact that 48 per cent., or nearly half, of all subscribers out of service or affected are covered with the assistance of the Wire Chief's men only shows good coöperation on their part with the C. L. B. This percentage should be higher, for the higher it is the less the length of time before the working lines are restored to satisfactory service.

Of course it is realized that a Wire Chief on a day when he is loaded up with trouble has a hard enough time, with the limited number of men at his command, in testing and clearing his instrument and line trouble. Nevertheless the five or ten minutes required of his men for tests on trouble that proves in the cable will be time well spent, for many times but one test is required for a final location; and even if the trouble men cannot be spared for further work, if the first test is not the final one, the information thus acquired can be used to advantage later. Line orders held for spares, not being as important as trouble affecting working lines, are covered principally by the testman's helpers, as the percentages show-31 per cent. with two helpers and 67 per cent. with one helper.

Forty hours per month is the average amount of time the Wire Chief's men are used by the C. L. B., \$28.10 the average amount of carfare saved per month, 485 the average number of miles ridden by the testman's helper per month on his motorcycle, and \$200 per month the average total saving in testing expense brought about by C. L. B. methods. Another saving which cannot be estimated in money values, but which is of the greatest importance, is the reduction of the time elapsing between the reporting of cable trouble and the locating of it. There has been a reduction for serious cases from an average of three hours to one half hour, and for ordinary cases from twelve hours to two hours. The ordinary location gang, one tester and one helper, working at top speed, would take nine weeks to do the work accomplished by the C. L. B. in four weeks. Here is a sample of work done on a very busy day during and after a hard rain: 2 cases in Dia-

mond, 4 in Dickinson, 3 in Filbert, 2 in Frankford, 2 in Germantown, 1 in Kensington, 1 in Poplar, 1 in Spruce, 3 in Tioga, 1 in Camden, and 1 in Bryn Mawr. The total number of lines our of service in these districts was 100, and the total number affected was 9.

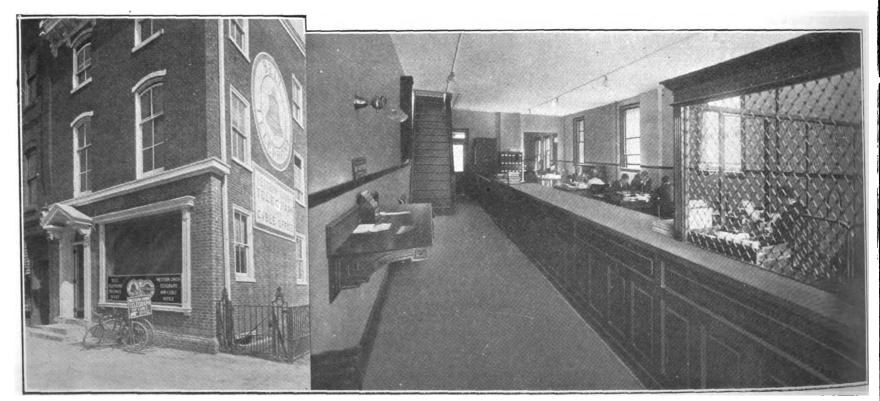
There are now connected to the C. L. B. 18 city offices and 8 suburban offices. The city offices alone have a total cable plant of 1100 miles of underground and 67 miles of aerial. The average length of lead for the city offices is 4.6 miles. The shortest is the Spruce lead—120 feet; the longest, the Torresdale lead—15.2 miles. The longest suburban lead is that to Norristown—20.2 miles.

The equipment in use, though crude in the extreme, has given such good results that plans have been made for the installation of a two-position test table similar to the standard type, but with such modifications as will enable us to handle cable trouble. These modifications are principally the number of line and test trunks to be provided for, the use of high sensibility voltmeters, and the jacks, patching cords and switching keys necessary to make the proper connections between the test trunks, the bridge and various condensers, tone tests, etc. These plans also provide for a different and better equipment at the various central offices.

The apparatus to be placed at the main distributing frames will be of such a type that if necessary spare cable pairs as well as working wires can be used for talking purposes between the main frame and outside man either way, giving standard transmission to the C. L. B.

It is hoped that June 1, 1913, will see this table installed and giving satisfactory service. A testman will then be able to make all necessary tests with a minimum of labor and a maximum of speed, and without imminent danger of hanging himself in a multitude of leads, now draped about his head and hands.

Ultimately it is planned to locate the cable trouble of every district which is connected directly to Philadelphia by cable. Mr. Cunningham has become such an enthusiast over the possibilities of the C. L. B. that I believe he has serious designs of taking over the cable testing of New York and Washington.



Philadelphia Division ~ DJ.CLEARY, Division Correspondent

New correspondents for the Philadelphia Division have been appointed. To insure having news from each representative group of employees appear in every issue, it is requested that items for these columns be forwarded through the corresponding men whose names appear on this page: Chester District, H. Mathews; Germantown District, F. R. King; 1230 Arch, Business Office, W. Bradford; 1230 Arch, Cashiers' Office, J. J. Owens; 1230 Arch, Sales Division, J. E. Chambers.

Chester District

Bonsall Day, a chauffeur of one of our motor trucks, hauled two gangs of workmen to their respective jobs, the other morning. While at luncheon near Lansdowne, Pa., the local fire alarm was sounded. At the fire house, difficulty was experienced by the men in getting a heavy fire wagon to the fire scene. Mr. Day hurried to his truck, drove to the fire house, and hauled the men and wagon to the fire without delay. The fire had gained serious headway, and credit for saving the large stable, which was burning, as well as near-by buildings, was given to Mr. Day for his good judgment and prompt action.

MATHEWS

Germantown District

Visits to central offices in Philadelphia have been encouraged by the use of large framed cards, illustrated on page 6. They are hung in conspicuous places in the Philadelphia and Germantown business offices. Invitations will be mailed with our bills and, for a month or two following, the same welcome will be extended by printed notices on the backs of bills. See illustration of framed card on page 6.

Thus far the public has been responsive and many trips through the central offices have been taken. A Chestnut Hill subscriber, who had visited the central offices in Tokio and Yokohama, brought a postcard to show our employees how a native girl there looks when using the telephone. A part of the card—not covered by writing—is here reproduced. It illustrates an operator talking from the central office.

As some of our employees are aware, the Japanese telephone service has been greatly improved within a few years. Western Electric equipment is extensively used now and an applicant for service is no longer kept on a waiting list for a year or until a subscriber died, as was the case there only a few years ago.

We venture to say that the best service received by this subscriber when in Japan could hardly compare with any at her Chestnut Hill home even during the peak loads.

An Ogontz, Pa., subscriber wrote to our Traffic Supervisor as follows:

"Mrs. J. N. Frazier wishes to express her appreciation of the excellent telephone service of this line. The service is better than any other line near Philadelphia. The operator is always very quick, most polite, and in every way efficient; and the service is perfectly satisfactory in all particulars."

An Ambler (Pa.) subscriber who had been served quickly wrote: "District Manager,

Dear Sir:—Enclosed you will find the amount of my bill for telephone service, and I wish to

thank the Telephone Company and also the installer for the prompt attention which I received in placing the telephone in my home. I had it put in on account of the serious illness of my sister. I signed for it on Monday morning and my telephone was O.K. on the following day, which I appreciate very much.

Respectfully yours,

KING.



Using the Telephone in Japan (See Germantown District news)

1230 Arch, Business Division

The Unique Dramatic Association presented a telephone play in the LuLu Temple, 1337 Spring Garden Street, Philadelphia. Our Company furnished a switchboard and telephone and later received a letter of thanks from the amateur performers.

The Bell Telephone Business Office Team defeated the American Radiator Company's Team

in a heavy-hitting game at the latter's grounds by the score of 21 to 9. The game was closely contested until the sixth inning, when the "Hello Boys" drove the opposing pitcher from the box and, aided by their opponents' errors, netted twelve runs. The Commercial team had only one error chalked against it and played winning ball from the start, successfully working three squeeze plays. The features of the game were Bradbury's hitting and Kane's home run.

One Saturday afternoon lately was enjoyably spent by some of the Philadelphia sales force at Haddonfield, N. J. After a most exciting baseball game in which the Telephone Order Table Clerks beat the Correspondence Clerks 10 to 9, the entire party assembled at the home of Mr. Norcross, where they were treated to refreshments and enjoyed merry music by the young women.

The outing was so successful that a regular contract baseball team has been selected, and games are being scheduled for every Saturday during the summer. Challenges are invited from all of the departments.

May Suggestion Slips in Philadelphia

In Philadelphia and vicinity, 179 slips were forwarded by the Traffic and Plant employees during May, and 95 of them were productive of business.

Considering all from the revenue obtained, the leader was M. Kibler of the Traffic Department, who sent seven slips bringing as many stations, and C. Moran ran a close second with five slips, bringing six stations. Others worthy of special mention were B. G. Simpson, with five stations, J. L. Lafferty, C. H. Mott, H. Peters, H. Snyder, W. R. Felker and C. G. Lorenz of the Plant and E. P. Farra, T. Givinish, H. V. Strain and I. M. Keenan of the Traffic.

In all \$2210 worth of business was obtained from the May suggestions in this locality, so that the plan is still bringing good business.

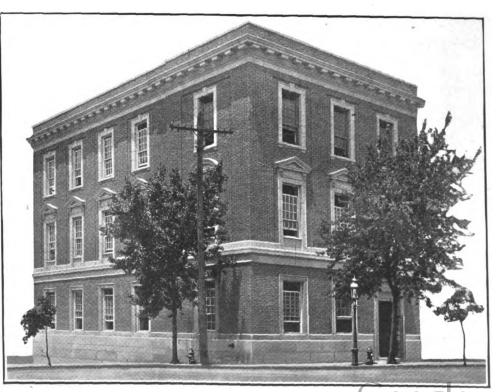
BRADFORD.

(Philadelphia Division News continued on page 6)

"Wyoming"
Central Office,
Broad and
Rockland Sts.
Philadelphia

In time for the October, 1913 directory, about 1100 Tioga lines will be cut over to this office.

The Traffic work will be supervised by the Germantown Traffic Supervisor



1230 Arch, Cashiers' Division

A Philadelphia subscriber wrote a letter to the Commercial office requesting that an agent call to see her, and enclosed with her letter a streetcar transfer several days old.

The Evening Telegraph reproduced an envelope showing how a letter was addressed to one of our subscribers with the telephone number as the only address. The letter reached its destination promptly, although the number and not the central office prefix appeared on it.

A Cynwyd (Pa.) physician wrote:

"As per the conversation over the telephone yesterday with your department, I write to say that, since I have moved from my residence at Cynwyd, I should like the telephone service discontinued and a final bill rendered to me at Riverton, N. J. I shall take it up and pay it at the earliest opportunity.

Thanking you for your very courteous treatment in the past and desiring to call your attention to the very few telephone troubles which I have had during the time that your Company has served me, I am,

Very truly,

OWENS.

1230 Arch, Sales Divison

Good branch exchange salesmanship has been demonstrated in Philadelphia by a number of men. The Manufacturers' Club, now building at northwest corner of Broad and Walnut Streets, will have a two-position switchboard and 101 stations. The sale was made by G. W. Burr. The new Hotel Vendig, northwest corner Thirteenth and Filbert Streets, will have the same-sized switchboard with 218 stations as a result of J. J. Donnelly's work. S. E. Tinkler, Jr., Contract Manager, sold the new Hotel Adelphia, Chestnut below Thirteenth Street, P.B.X. service with 457 stations. The Pelham Court Apartments in Germantown were sold additional trunk line service by salesman H. S. Griffith.

Just prior to the death of a prominent official of the opposition company in Philadelphia, Bell service was installed in his residence. tending physician had no Keystone service.

J. E. CHAMBERS.

Directory Advertising Treated in Baltimore Convention

"Directory Advertising" was the subject of discussion in one of the departmental sessions of the convention of the Associated Advertising Clubs of America, held in the Fifth Regiment Armory, Baltimore, Md., June 8 to 13.

> You are cordially invited I to inspect one of our central office switchboards. Inquire at counter and a guide will accompany you.



Telephone Men at Baltimore Convention

FRONT Row:

P. W. Eldridge, Dir. Adv. Mgr., New York Telephone Co., New York.
L. L. Cleaves, Div. Adv. Mgr., New York Telephone Co., Syracuse, N. Y.
R. S. Scarburgh, Adv. Mgr., New York Telephone Co., New York.
M. H. Beuhler, Second Vice-President and General Manager, The C. & P. Telephone Co., Baltimore, Md.
J. E. Boisseau, Pub. Mgr., The C. & P. Telephone Co., Baltimore, Md.
Thos. J. Feeney, Pub. Mgr., New England Telephone and Telegraph Co., Boston, Mass.
F. S. Whitman, Div. Mgr., The C. & P. Telephone Co., Baltimore, Md.

Evelyn Harris, Pub. Agent, Southern Bell Telephone and Telegraph Co., Atlanta, Ga. Kendall Weisiger, Traffic Engineer, Southern Bell Telephone and Telegraph Co., Atlanta, Ga. C. H. Moore, Dis. Com. Supt., Pacific Telephone and Telegraph Co., Portland, Ore. C. E. Rolfe, Dir. Adv. Mgr., The Bell of Penna., Phila., Pa. T. T. Cook, Editor, The Transmitter, The C. & P. Telephone Co., Baltimore, Md. Francis Lawton, Jr., Commercial Engineer's Office, A. T. & T. Co., New York. T. J. Moseley, Vice-President's Office, The Southwestern Telephone and Telegraph Co., Dallas, Texas.

S. M. Greer, Gen. Com. Supt., The Chesapeake & Potomac Telephone Co. Baltimere, Md. J. K. Jett, Dir. Adv. Mgr., The C. & P. Telephone Co., Baltimore, Md. Frank C. Builta, Adv. Mgr., Nebraska Telephone Co., Omaha, Neb. H. K. McCann, H. K., McCann Advertising Co., New York. Edw. Carney, Colliers' Weckly, New York. H. G. Stokes, Adv. Dept., New York Telephone Co., N. Y.

The discussions of this subject were conducted under the auspices of the Association of American Directory Publishers, with W. H. Lee, of the firm of Price & Lee Co., Springfield, Mass., in the chair.

The principal speakers at this meeting were Frederick J. Hillman, President of the New England Audit Company, who spoke from the viewpoint of a successful buyer of directory space. Mr. Hulman is a very impressive speaker and handled his subject in an instructive and entertaining manner, bringing out many ingenious way his firm had used directory advertising space profitably, and offering not a few criticisms whereby the directory may be made to render better service. While his speech was made with the city directory in mind, many of his arguments were applicable to the telephone directory

Reuben II. Donnolley, of Chicago, publisher of the Chicago City Directory, better known to telephone men as the publisher of the Chicago Telephone Directory, the Red Book of New York and others, spoke of the relation of advertising agencies to directory advertising.

After these speakers had concluded, the meeting was opened to discussion, and at this point the small coterie of telephone directory men who were present got into the fray and made some suggestions which met with general favor relative to gaining a more important position on the program of the convention which is to be held in 1914 at Toronto.

A committee was appointed to confer with the committee from the general convention regarding this, consisting of the chairman, Mr. Lee, Mr. G. D. W. Marcy and Mr. Reuben H. Donnolley Mr. Donnolley to act as the representative of the telephone directory advertising men.

Among the telephone men present were Mr. Ellis and Mr. Eldridge of the New York Telephone Company; Mr. Bogenshutz of the Pioneer Telephone Company, Oklahoma; J. K. Jett, Dir. Adv. Mgr. of the C. & P. Telephone Company and C. E. Rolfe of The Bell Telephone Company of Pennsylvania.

On Wednesday, June 11, these same men met at the office of J. K. Jett and discussed the subject of what was accomplished for the telephone directory in the convention and laid plans for a more complete discussion of the directory at the next convention.

Classified Directory Compliment

A Philadelphia Directory advertiser writes a follows:

"I wish to compliment you on the appearance of your classified section, more especially my ad under Carpet and Rug Renovating.

"The fourth day after the book came out this ad brought me an order which more than paid for the ad for the year, and it is still making good ized by GOOGIC

This style of sign has been hung in various conspicuous places in the Philadelphia Division District Offices.

(See Germantown District News.)

THE TELEPHONE NEWS

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania The Central District Telephone Company The Delaware & Atlantic Telegraph & Telephone Co The Diamond State Telephone Company

F. H. BETHELL. President
H. F. THURBER, Vice-President
L. H. KINNARD, Second Vice-President and General Manager
W. S. PEIRSOL. Sec'y and Treas.
R. M. FERRIS. Chelf Engineer.
I. H. CROSMAN, Jr., Gen'16cm Sup't
I. C. L. NYCH, Gen'1Sup't of Plant
I. C. L. NYCH, Gen'1Sup't of Plant
I. M. HAYWARD, Engineer
J. H. HIONS, Auditor

Managing Editor, E. H. HAVENS, 17th and Filhert Streets, Philadelphia, to whom all communications should be addressed SUBSCRIPTION PRICE:

payable in advan

Vol. IX

JULY 1, 1913

No: 13

Have You Cast Your Ballot?

ENCLOSED in each employee's copy of this issue is a card urging your answer to an important question. What is desired is a very frank expression from everyone; not only as to what regularly interests you most in the NEWS, but what helps you most,—though probably these are one and the same.

Embrace this opportunity to assist the editors in canvassing the impressions of the paper's readers,—for on those readers rests very largely the responsibility of maintaining a thoroughly worth-while publication. Don't neglect to vote in the expectation that hundreds of others will express your views exactly. Your vote is wanted.

It is appreciated, as the art of telephony and the organization of its forces have advanced, that the functions and accomplishments of a paper such as ours must have undergone like changes. It is that we may keep abreast of this progress that your point of view is now sought.

May we count on you?

Vacations

HERE you goin'?" "Is it any fun?" "How much does it cost?" And so on and so forth. Talk of the Music of Spring; but what compares for one brief moment with the song of our old reliable friend—vacation-time—the song that tickles our ears as we dig out that old, faded bathing suit or rusty camp outfit?

That song is now in the air—in it with a vengeance. Brown is slipping away for early fishing; Smith is tinkering with his motorboat; Jones has a half dozen time tables in his pocket; and the vacation schedule of every office is putting old friendships to the test.

And isn't it great? Here we have been grumbling for a sixthmonth over the ex-

actments of our jobs, or the stuffiness of the offices, or something equally dire and terrible,—partly because we've got to grumble about something, but perhaps more to whet our appetite for those precious days which come like a snail and pass like the proverbial scared cat.

The fellow who says vacations do us no good might get a vote or two as dog-catcher. But if someone would only tell us just how we might spend our vacations to best advantage, a July election would place him in the Presidency. Everyone has his own vacation problem,—usually a mighty big problem, too,—and personal hints don't carry much weight in the excitement of preparation. But there're just a few words of repeated suggestion which "the job" itself can offer as you board the train for the seashore or mountains.

Forget for the time that there is a Plant Department or a message-rate adjustment. Don't let a single sundown remind you of an iron left smoldering in the office fire. Don't wonder if Joe or Jim or someone else has brains enough to keep your desk clean in the inimitable way you do it. Bury the twelve months of worktime, and all the thoughts and concerns incident to it, forty-'leven feet underground. Your vacation and my vacation profit us only in the same measure in which we clear out a mass of fuddled brain-cells and polish up the mental and physical engine—as Dr. Woods Hutchinson calls it—till it shines like a new desk

Remember that "the big year" lies just ahead. Next September someone is going to pull the throttle wide open, and by that time we'll, each of us, need every ounce of energy and punch that the vacation breathing space can muster up. The Company or the boss doesn't make these suggestions,—it is the job itself that presumes to dictate; and bear in mind there would be no vacation if there were no job.

So, a bully time for everyone! The NEWS takes no vacation,—but the editors have theirs planned out, and they're going to be "some" vacations.

Do You Advertise?

TO every reader of the daily press there is apparent an increasing public interest in the telephone progress of the community.

A new central office building, the installation of common battery equipment, increased toll facilities, the extension of our underground plant—these and similar local happenings, which for years went

unnoticed, are now exciting generous public attention and comment. The thinking public has awakened to the fact that this telephone activity means something; that it has the same significance that has any great public work designed and executed for the benefit of the community.

But what are you doing to advertise this progress? You regard the telephone as your business, don't you! But do you talk of it as your business; do you let your cronies and your acquaintances know of the really important things that your company is doing!

Suppose you ran a store, just a plain, ordinary corner store. And suppose you added another story to that store. Would you talk about that addition? I should say you would. You'd miss about one opportunity in a thousand to let everyone within ear-shot know that you had added to that store of yours. You'd invite them in to see the new quarters, and you'd make sure they came.

Now, if the telephone business is your business, don't be afraid to tell of its progress. Let people know what's going on in the telephone community. Invite them in to see your "store," show them the switchboard, the terminal room and the business office.

If you're not now doing it, advertise.

Completed vs. Postponed Duties

(By Miss Mabel Clark, Stenographer in the West Chester, Pa., District Manager's Office, Philadelphia Division)

A R E we doing justice to our employer? Are we doing justice to ourselves? If not the former, then certainly not the latter.

How often do we start one piece of work and, instead of completing it, permit it to lie for another time, probably not finishing it until several days later? The easy part is finished and the rest is left until someone—and in the most cases, the busiest man (who although always busy still has time to do something else)comes around and finishes what we should have completed. Should we not complete that particular piece of work at the time it is before us and not lay it aside to take up some easier task? The hardest thing is the easiest when completed right at that time. If left overnight, it is like a stenographer's notes, cold and hard to get out. There is no time like the present.

And above all, keep busy, for after being idle it is harder to resume any task.

Benjamin Franklin has truly said:— "Dost thou love life? Then do not squander time, for that's the stuff life is made of."







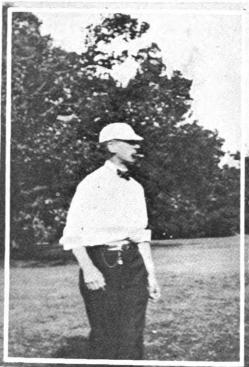
Heald and Toll-Rate Meigs

The Cross Talk Society's Outing

OT only did twenty-nine members of the Cross Talk Society forget their telephone troubles on Saturday afternoon and evening, June 14, but the statement is equally true of his majesty C-O-D Lee, 3rd, the fourfeet-seven, sixty-pound mascot who condescended to come in from Ardmore, Pa., to lift the affair from the commonplace.

From 1.45, when the front-seaters stepped off the train, until dinner time, when their numbers were augmented by Felton Taggart, all was excitement. The last-mentioned distinguished gentleman, by the way, would have arrived earlier but he took things for granted and bought a ticket for Merion instead of Haverford, where the Merion Cricket Club happens to be. After using all of his rights-of-way persuasion on the station agent, he modestly sat down (so he confided) and mailed for a train that would take him on to Haverford. Be that as it may, he told the majority of the members that he had been on com-

pany duty at Wilmington.
"'Ow-hever," the first division lost no time in taking a dip in the gymnasium tank-[We'd quite forgotten to say the Haverford College grounds were honored by the club in its "choice" of suit-



Ed Zerman came down from Trenton

Club was "selected" for the dinner which followed-and then donned uniforms for the great and memorable game.]

Whoever planned the affair is to be credited with a wide knowledge of human nature in general and telephone men's muscles in particular, for the grass field and specially selected potatolike cork and rubber baseballs were most suitable.

All eyes were intent on the game of swat-'em with three cork balls engaged and three times that number of men dodging well directed aims. Suddenly—and with many toots of the auto horn—up the drive came W. W. Young, the retiring Secretary-Treasurer, and W. A. Eipper, another magnate in the society's organization.

Without loss of time two team captains were prevailed upon to act and to choose players from among the men then present. C-O-D Lee, Jr., for the Whites, and W. F. Repp for the Blues, did that important stunt. Lee's group was as

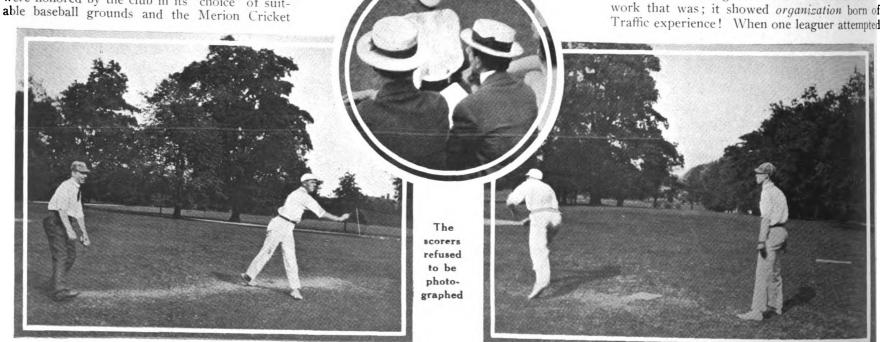


Around the Water-Cooler

J. M. Brown, Jr. c., Barrows p., Eipper follows: 1b., Heald 2b., F. W. Figner 3b., E. B. Zerman rf., C-O-D Lee lf., Trax ss. For the Blues, Repp had Wistar c., F. B. Evans p., Mason 1b., Repp 2b., Legal Evans 3b., Beckman rf., Speh lf. and Meixel ss. It will be noted that no center-fielder was needed, as no one could drive the potato so

The great game was on. Blue and white hats were in it to the finish, but not heads, for after four runs-which couldn't justly be credited to either color-it was decided in a typical jambaree around the pitcher's box that the hats were mixed and some men with white hats were playing where blue hats should not have been or were not otherwise, so to speak, as Longbow would say.

Rapid rehatting and rearranging put Toll Rate Meigs in the pitcher's box with Wistar as catcher for the Blues and Mason at the bat to uphold the Whites. Someone said the batter made a run; we'll not dispute it. Meigs' pitching was a trifle erratic, but that made no difference, for Kunkel, the next man up, jumped the worst ones and incidentally while catching stopped one with his head. Beckman did double duty by playing for a time at right field on both sides. Noble work that was; it showed organization born of



Gibson umpired and five-fingered Brown pitched

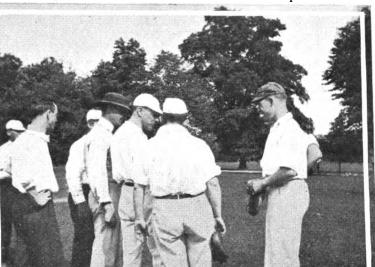
to decline the honor of batting, from Umpire Staples came the assuring words: "The umpire

is with you—go to it," and he went.

An "assisted" double play by Mason's foot succeeded in retiring Trax, who had in some mysterious way gotten started toward first. Eipper as scorekeeper was particularly popular in that he persuaded someone familiar with the local geography to get a bucket of water for the sideliners. The beneficiaries are recorded advisedly because the players usually found the bucket contents approaching the negative quantity.

Here—as many times later—the battery reversed places and Gibson, the firstclass operator of a below-first-class public telephone training, began his administration as umpire. In one of his first decibefore 4. Then Eipper held down first, but Wistar got past him as well as Figner at third, and scored. E. B. Zerman in right field was safe, for nothing hit him. A drive to the main entrance of Barkley Hall scared Legal Evans—over whose head the ball drove—but he too was safe.

When the excitement was greatest, someone appealed to the scorekeeper for the total so far "out" that inning. Mouradian at once said, "I don't know anything about it,—that's not a function of the Engineering Depar—" Then he caught himself and refused to talk on the point.



Lee starts the usual argument



Legal Evans on the "hot corner"

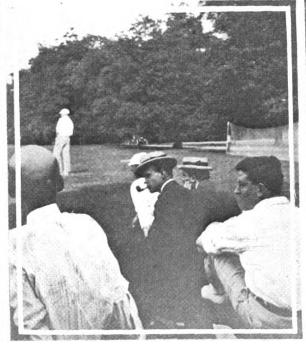
sions, when the pitcher's effort was dubbed a ball, Beckman at right field said he could see from there that it was a strike!

Finally Legal Evans—we say finally because it was a noteworthy struggle—reached third and Barrows scuffed to second.

Frank Figner, who sat on some chewing gum, couldn't get it off of his flannel trousers and was called to bat in this most embarrassing predicament. Speh, who was annoyed because the cork balls could have been bought more advantageously through the Western Electric, forgot it all, and so did everyone else, when his seven-league leaps (not so gracefully) took him after left-field hits and around the bases.

J. M. Brown, Jr., batted and "also ran," but not so rapidly as that man Trax. Trax's steps seemed short but they made up in rapidity. Meigs stopped a liner with his stomach and Barrows, between puffs at a deadly cigarette, pitched illustriously. Gibson still umpired mainly because no one seemed inclined to put him off the field.

Mason stole third, inasmuch as the spikes in his shoes scared everyone, including Heald on second, from interfering. Brown muffed a foul tip with skill that would have made a schoolboy envious. C-O-D Lee, the larger, shouted much in left field, but no one saw him grasp anything except the air. Eipper tired of scorekeeping and the honor devolved upon Mouradian, who with Kilpatrick (NOT and-Daly) had arrived shortly



Back of third base

Barrows showed versatility in lightning changes from left- to right-handed batting and in some way avoiding being hit. When portly Figner made a two-base hit, the remark was heard, "Someone ought to put Frank in a wheelbarrow!"

At one crucial point Scorekeeper Mouradian made comments which Young said were out of his province as an impartial official of the game. With characteristic rapidity that member replied, "It is the individual talking; the scorekeeper keeps out always."

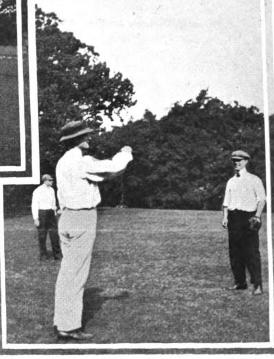
During Barrows' voyage around the bases he lost his hat and promptly took the nearest bag in his chase for the wandering head adornment. The umpire failed to see it, so the runner was

safe. At bat, when Meixel's natural corporeal extension interfered, someone in the outfield shouted for him to stand back from the plate so the umpire might see the catcher. Zerman struck out so many times that even the scorekeeper lost count. About this time Griest arrived and took his place on the grass grand-stand with the other distinguished side-liners. It was rumored that he had been engaged in remodeling City Hall for open-air sleeping apartments.

Somewhere and somehow the Blues scored 23 runs to the Whites' 13, in spite of the umpires'

widely differing decisions. At any rate, nine innings—plus part of another uncounted one—were rattled off.

Then came the shower-baths and tank dip, indulged in by the players but de-



"Take-him-out Barrows"

clined by England, Moody, R. S. Henderson, C. C. Brown and Havens.

The trip cross-town to the Merion Cricket Club discovered Adebrobins, author of the world-famous novel on "Love," and R. J. Meigs, formerly of A. T. & T. but now of Western Union fame, who had arrived in time for the gastronomic festivities.

At the dinner, retiring Secretary-Treasurer W. W. Young announced A. de B. Robins as his successor and C. O'D. Lee, Jr., as chairman succeeding J. S. Francis. The Governing Committee for next season is as follows: C. O'D. Lee, Jr., e.r officio chairman; J. M. Brown, Jr., A. de B. Robins, F. W. Figner.

Any discrepancies between the scores and the foregoing description are due to the umpires and scorekeepers!

WHITES

| VV 1. | 1111 | 4.7 | | | | |
|----------------------|------|-----|----|----|----|----|
| | AB. | R. | н. | O, | Λ. | E. |
| H. C. Kunkel, 1b | 2 | () | 0 | 6 | 0 | () |
| W. A. Eipper, 1b | 5 | 2 | 1 | 3 | () | 1 |
| J. M. Brown, Jr., c | | 5 | 3 | 13 | () | 4 |
| H. A. Trax, ss | 7 | 1 | 2 | 1 | 4 | 1 |
| G. D. Heald, 2b | 6 | 2 | 1 | 1 | 3 | 4 |
| R. L. Barrows, p | 6 | 1 | 2 | 2 | 1 | 5 |
| E. B. Zerman, If | 6 | 0 | 1 | () | 0 | 0 |
| F. W. Figner, 3b | 6 | 1 | 2 | 1 | 2 | 1 |
| C. O'D. Lee, Jr., rf | 6 | 1 | 2 | 0 | 0 | 0 |
| | | | | | | |
| [See next page] | 51 | -13 | 14 | 27 | 10 | 16 |

[See next page] 51 13 14 27 10 Digitized by

BLUES

| | AD. | г. | 11. | | 43. | ш. |
|-------------------|--------|----|---------|-----|-------|-----|
| T. Wistar, Jr., c | 7 | 4 | 3 | 13 | 1 | 6 |
| E. W. Evans, 3b | 7 | 3 | 1 | 2 | 3 | 2 |
| R. C. Mason, 1b | 7 | 4 | 2 | 9 | 0 | 0 |
| F. P. Meigs, p | 7 | 5 | | 1 | 2 | 7 |
| E. J. Speh, rf | 7 | 4 | 2 | () | 0 | 0 |
| J. S. Beckman, If | 7 | 1 | 3 | () | 0 | 0 |
| C. L. Meixel, 2b | 7 | 0 | 1 | 1 | 3 | 0 |
| W. F. Repp, ss | 6 | 2 | | | 3 | 1 |
| | 55 | 23 | <u></u> | 27 | 12 | 16 |
| | .,, | | • • • • | ~ . | • .~• | • • |

Triples—Trax, Wistar, Beckman, Doubles—Figner, Lee, Wistar, Mason, Speh. Struck out—by Barrows 13, by Meigs 12. Bases on balls—by Barrows 5, by Meigs 5. Hit by pitched ball (by Meigs)—J. M. Brown, Jr., and C. O'D. Lee, Jr.

Card Ledger vs. Loose-Leaf Ledger System

By P. C. Kramer, Division Auditor of Receipts, Philadelphia

FTER an exhaustive study of card ledger systems as a means of keeping a ledger record of subscribers' accounts, a card ledger system was installed as an experiment in the Philadelphia Revenue Accounting Division for the Philadelphia City accounts, and by reason of its flexibility, compactness and ease of operation has proved very satisfactory.

While the card ledger system is still in the experimental stage it appears, from the comparisons we have already made, to have advantages over the loose-leaf ledger system. This will be definitely determined when our comparative studies are completed.

The card ledger system, in brief, consists of the substitution of a card for the loose-leaf ledger sheet. The card, like the ledger sheet, can be made of any size, ruled on both sides to carry the account for a definite period. The cards are filed by exchanges in wooden trays, in telephone number order, each tray having a capacity of 1000 cards. The trays are portable and fit into a pit at each end of a desk so that the tops of the cards are flush with the top of the desk, thereby enabling the bookkeeper to have within arm's reach any of the 3000 accounts for which he is responsible.

The writing surface of the desk is flat, since with a sloping top, such as is usually used for ledger work, there would be a tendency for the cards to slide from the desk as charges and credits are posted to the subscribers' accounts. The desks are of the usual sanitary type, especially designed so that the adjoining ends of each set of two desks rest jointly on a four-inch light wall safe, in which the ledger records are placed at night. The safe, therefore, serves as a pedestal for the desks, and affords adequate fire protection for our ledger records without additional floor space beng required.

The cards which are now being used are ruled to provide for the account for a period of three years, and are so designed that several changes in either the contract or telephone number may be made before a new card for the same account is required. One radical departure in the design of the card is the plan of posting credits under the debits, instead of to the right of them, which is the usual practice. This arrangement not only reduces the size of the card, but since it provides for vertical instead of cross subtraction, the bills rendered item can be obtained with greater accuracy. The space provided for the credits is separated from the space provided for the debits by a heavy line.

The first objection generally advanced against the adoption of a card ledger system is the increased possibility of the records being lost, misplaced or misfiled, due to the flexibility of the system, but in a well organized department where only the bookkeepers and supervisors are privileged to remove a card from file, and under no circumstances to permit the card to leave the Accounting Department, experience has proved that, in practice, card ledger systems are just as effective as a loose-leaf ledger system for keeping intact the ledger records. In the Philadelphia Division, where the bookkeepers had no previous experience with card ledgers, no cards have been lost since the installation, January 1, 1913, and but few cards have been misfiled. Since ledger sheets are occasionally misfiled, the card ledger system should not be penalized, as misfiling is more the result of carelessness than the fault of either system.

The principal points of advantage of the card ledger system over the loose-leaf ledger system are as follows:

The speed and rapidity in handling the card ledger sheets is greater than in handling the looseleaf ledger sheets, as they are smaller, lighter and require less exertion to manipulate.

Speed and Rapidity

In entering the charges and credits to a subscriber's account, one or two hundred cards are removed from the tray and placed face upward on the desk. As each entry is made, the card is turned over, and the process continued until the work is completed. In listing amounts for trial balance or statistical purposes, the cards may be handled more quickly and with greater ease, particularly in connection with the adding machine.

Under the loose-leaf ledger system it is necessary to unlock and lock the binder each time that a sheet is to be inserted or removed, while under the card ledger plan a card may be inserted or removed from the tray simultaneously with the locating of the account.

Flexibility

Since each account is a unit in itself, any number of accounts may be assigned to or withdrawn from a bookkeeper without any interruption of the work, and one bookkeeper's work may be quickly divided among several bookkeepers whenever the occasion requires.

The supervisor can consult or obtain information concerning an account at any time without interfering with the ledger clerk's work. This is especially desirable where numerous telephone requests are received from the Commercial offices for information relative to the subscribers' accounts, as the card can be brought to the telephone and the information furnished from the original entries thereon. Under the loose-leaf ledger system this was not possible, and the information desired, therefore, had to be copied from the ledger. This was a slow process and resulted in a loss of time to both the Accounting and Commercial offices.

With centralized accounting, many uniform indexing possibilities may be introduced by means of metal index tips that are approximately a quarter inch square and may be quickly attached to or removed from the card ledger. These tips do not interfere with the handling of the card ledger.

Some indexing possibilities by means of index tips are as follows:

1. New accounts may be designated and payments and heavy toll usage watched by the book-keepers without their being required closely to scrutinize each account.

- 2. Accounts carrying unusual revenue classifications may be quickly located, thus assisting the bookkeeper to report the revenue under the proper classification.
- 3. The bookkeeper's attention is automatically attracted to accounts with special requirements, such as weekly billing, duplicate bills, separate bills for toll and local service charges, etc. Without this index tip it was possible that the notation on the ledger account covering the special requirement migh be overlooked.
- 4. Where data regarding the development of a new class of service is desired, the Accounting Department, having an index tip on all such accounts can at any time quickly obtain the information without handling other accounts.
- 5. Message-rate accounts showing messages in excess of the number contracted for may be designated, the tip being attached at the time the first excess is recorded and removed at the expiration of the contract year. This arrangement results in an additional check that excess messages have been properly billed.

Convenience of Operation

The lifting and handling of ledger binders weighing approximately thirty pounds under the loose-leaf ledger system is avoided. In the card ledger system a small number of cards may be removed from the tray as required in the work of posting. This calls for small physical exertion, a factor of considerable importance when women are employed on ledger work.

The writing surface of the card is always flat and near the record to be posted, and since each card is a separate unit and stands on edge in the trays, numerical subdivisions may be obtained by means of a distinctive color card with prominent numerals printed thereon. This arrangement enables the bookkeeper to locate quickly any particular account desired.

Since any system that lessens the mental and physical effort of the employees conserves their energy for more intelligent work, we believe that the introduction of the card ledger system will result in greater accuracy and efficiency in the work of the Revenue Accounting Department.

Buffalo Excursionists Use the Bell

A special train composed of six Pullman coaches and one baggage coach, and occupied by about 150 representatives of wholesale merchants of Buffalo, made a tour of the towns in northwestern Pennsylvania, June 11, 12 and 13.

Line orders were issued to the Plant Department at Ridgway, Altoona District, to furnish one circuit from each of the exchanges in the district, viz., Johnsonburg, Ridgway, St. Marys and Emporium, to the train; these terminated on two binding posts on the side of the coach.

The circuits were run and about seven or eight hundred feet of No. 14 twisted pair wire provided for loop, as exact locations could not be secured

Mr. Steffins, of the N. Y. Tel. Co., of Buffalo, had charge of the instrument on the train and complimented us on the quick connection and also the handling of the calls by the Traffic Department. Two calls were completed at Johnsonburg three at Ridgway, twelve at St. Marys (where a stay was made overnight) and three at Eurporium.

F. T. Lesser, Plant Wire Chief at Ridgway, assisted by George W. Malin and H. W. Lesser, handled the connections at all points. Incidentally it was necessary to make a nine-mile drive across country to connect the train at St. Mary after disconnecting the drop at Johnsonburg.

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THE TELEPHONE NEWS





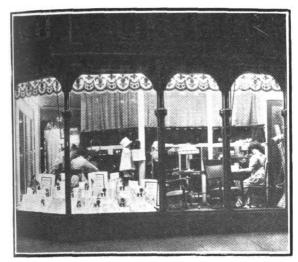
11



Tarrisburg Division~ J.C.WEIRICK, Division Correspondent

Allentown District

The efficiency of the telephone in case of fire has again been demonstrated. A man living across the street from a grocery store noticed a bright light in the room and, looking out of the window, saw that the store was on fire. Having an extension set in his bedroom, he immediately called the engine house. The firemen responded and extinguished the fire in a short time.



Bush and Bull's Store Window at Easton, Pa. with Telephone Display

A rural subscriber calling at the Allentown office to pay his bill inquired if the cashier ever got bouquets. Upon her answer in the negative he went to his wagon and returned with two bunches of onions and insisted upon her accepting them!

Reading District

A subscriber served from a magneto exchange recently reported that he was unable to get service because the generator crank was continually falling off. Upon inspecting the instrument it was found that the subscriber turned the crank in the wrong direction, thereby unscrewing it each time he wanted to use the telephone.

A Hamburg subscriber notifies the Commercial office in the following impressive manner: "Dear Sir

I regret to have got your Bills few times already, but them I don't under stand some times, why don't yous keep them like yous first had them, sich things caws me no Money no more to send, if yous want to do Bizness some one around aut to come so we could speek to yous and fix right them things, Bills caws me to sweer so send no more till you must come and see me, threw the day time I am to Home not once, you must come after 5 pm in the evening then I will be to Home if nothing turns up, I ake to talk hard to the man, I don't want to have it this way, now come and see me and Oblige

Yours Truely let me know how and what"

A real estate and fire insurance broker at Lebanon consulted one of our representatives about a catch-phrase for advertising his business. The Bell salesman immediately went to a telephone and found that line No. 666 was not in use. After the subscriber had signed from four-party

to individual line service getting the call 666, the following advertisement was placed in all of the street cars and in prominent places in and about Lebanon:

Are You Insured?

One look means a lot One lot means a home

Ask the Operator.

A display was recently placed in the window of a hardware store at Reading. Several days after the display had been running, a salesman called to see the proprietor of the store, hoping to secure information that might lead to a contract. He was informed that a certain customer had asked the price of the telephone in the window. The prospect was called upon immediately and an application secured. The new subscriber was so enthusiastic about the service that he insisted upon the salesman leaving a telephone directory. This we immediately hung on the wall in a very prominent location.

Scranton District

One of our subscribers felt that she would have to dispense with the telephone. Her husband had been injured on the railroad and she was consequently forced to cut down her expenses. Twenty-four hours after the telephone had been removed she called up the office stating that she had decided to economize in other ways, as she missed her telephone so much that she had a good crying spell, because it seemed like losing one of her best friends.

The first aid instructions which our people have been receiving throughout the territory have already borne fruit in a number of instances. One example was a case where a railroad workman at Honesdale fell and broke his arm, causing the bone to project through the flesh. Our Plant representative, U. G. Morgey, who happened to be near at the time, gave first aid to the injured man and stopped the flow of blood until a doctor arrived.

SMITHING.

Wilkes-Barre District

The Holmes Metallic Packing Company of Wilkes-Barre, which has been prospects for our service for years, has at last come to the conclusion that long-distance service is a necessity. Their manager stated that he had just been informed by a ship-building company of New York that they had tried to reach his firm by Bell telephone and were surprised to hear that it was without Bell service. Since it was a matter in which immediate action had been necessary, a very large order was placed elsewhere.

Within three days the following private branch exchanges were signed in Wilkes-Barre: W. A. King & Co., bakery, No. 1, 2 trunks, 5 stations; Whites Hardware Co., No. 2, 2 trunks, 6 stations; Thompson Derr & Bro., general insurance, No. 1, 2 trunks, 7 stations; and additional equipment for the Boston Store, 2 trunks and 10 stations.

The manager of the Luzerne Cut Glass Company, Pittston, called the Local Manager's office recently and said he had placed a call for a man supposed to be in Honesdale or Hawley, but had been unable to give the operator the street address in either town. Nevertheless the operator had quickly located his party in Scranton. Consequently he wished to compliment the operators for the rapid and efficient service he had received, also the Company on the system that made such service possible.

At the last meeting of the West Pittston Borough Council the secretary stated that "the check had been received from The Bell Telephone Company in payment on pole tax." He said: "This company has been correcting our statement yearly, and has paid us each year for more poles than we billed them for. Last year we were paid for eighteen poles more than we had charged on our bills, and this honesty of The Bell Telephone Company has saved us several dollars."

SHAFER.

Williamsport District

Applications have been secured in the Bellefonte District for two No. 1 private branch exchanges, one to be placed in the Brockerhoff House with 25 stations, and the other in the Bush House with 30 stations.

Seven Plan "A" rural line stations were added to the Bellefonte exchange last month.

The Plant Department has installed a new switchboard at Eagles Mere.

A No. 2 P.B.X., consisting of 2 trunks and 4 stations, has been installed in the department store of Koller Brothers Company at Renovo.

Since the installation of the No. 2 P.B.X., consisting of 2 trunks and 6 stations, in the Pennsylvania Railroad freight office at Lock Haven, our Company has been complimented upon the very high grade of service rendered.

The Limestone Valley Telephone Company, now serving 20 subscribers from Sunbury, will run an additional circuit. This service company recently reorganized and signed a new Plan "A" application to replace its old Pennsylvania Telephone Company contract.

The telephone played an important part in a wholesale raid on a gambling joint at Milton, as it was the means by which all plans were arranged. The chief of police and his lieutenants highly complimented our night operator for the prompt and efficient service rendered.

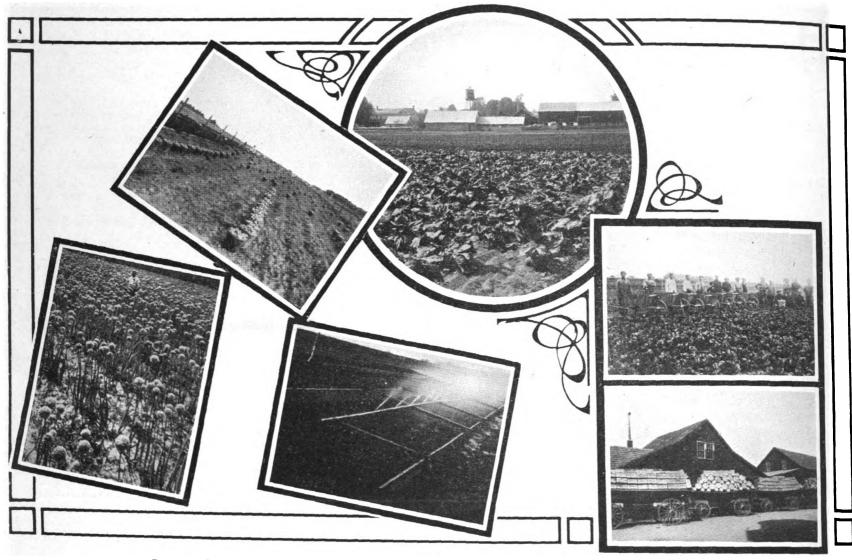
Western Electric men are now installing at the Milton central office an additional section to the main distributing frame, 200 additional jacks of various kinds and superimposed ringing current. This, when completed, will materially improve our service

The following No. 2 private branch exchanges with 2 trunks have recently been installed at Williamsport, making a total of 22 private branch exchanges now served from the Williamsport exchange: Northern Central Trust Co., 12 stations; Northern Central Gas Co., 6 stations; U. S. Sand Paper Co., 4 stations; Williamsport Mirror & Glass Co., 3 stations; and D. S. Andrus & Co., 6 stations.

The Western Electric Company has completed the work of placing an additional section to the No. 10 P.B.X. switchboard in the Pennsylvania Railroad Company's office at Williamsport. This addition was placed to increase efficiency in operating and to relieve the present overload. Ten trunks and 36 subscribers' lines have been cut over to the new section.

The Hotel Crittenden at Coudersport is using a novel menu which has our "Don't write—talk" announcement on one side.





Potatoes, Onions, Cabbages, etc., Grown by Irrigation and Continued Cultivation and Marketed by Telephone

(Continued from page 1)

to eight feet, water is forced from a central supply station to any section requiring moisture. Droughts are not feared where water may be supplied artificially at any time.

Labor, not obtainable locally, is brought from New York and Philadelphia in order that nothing requiring care and cultivation may be overlooked.

The value of the old-style soil enrichment, at stated intervals, is increased through periodical analyses of the soil by agricultural chemists. Thus the plants which require large amounts of nitrogen or potash get just those constituents in exactly the right proportions.

Modern Methods

Thirteen years ago, when the farm came into the possession of the present owners, very little intensive market gardening had been practiced, but from 1907, when the first half acre of ground was put under irrigation and the extensive and systematic use of soil enrichment was begun, prosperity showed itself in positive form. These improvements were so marked that additional ground was irrigated regularly, until by 1912 there were twenty-five acres so treated.

By a continued use of every device and method that will produce better results it is planned to build a business that will be second to none in the quantity and quality of farm products. The natural supply of water will not be depended

A Farm with Monitor Switchboard upon, nor will unfamiliarity with soils, the chemical needs of certain crops, the lack of business methods or reasonable demands of capital handicap these scientific farmers. Here intensive farming will do what it implies,-i.e., get from the ground the greatest amount of produce with the least expenditure of money and useless labor.

Sprinkling System

This farm has, at several periods during the past five years, been an experimental station for both federal and state departments of agriculture. Visitors are nearly always looking over some parts of the farm to gain information from the crops selected for certain soils, and from the methods employed in cultivating them, sprinkling pipes are always interesting to visitors. The system here used is known as the "Skinner System." It consists of a central pumping station, from which water is forced through underground mains to pipes which extend horizontally the full length of the fields. The pipes are at altitudes of from six to eight feet and run in parallel lines fifty feet apart. At intervals of four feet, outlets are placed, each of which contains a brass nozzle with a pin-point perforation. The nozzles are set exactly in a line and, when the water is turned on, the resulting sprays are thrown at the same angle. The pipe line is arranged so that it may be revolved, thus reaching by its spray a circumference of twenty-six feetor overlapping by one foot the spray from the next row of pipes.

A careful study and comparison is made of every crop planted and of every kind of seed

used in order that the following plantings may benefit. With six standard vegetables under consideration, it is interesting to note that the irrigated crops have produced from 165 to 371 per cent. more than in previous years when irrigation had not been adopted. Also the improved method has brought earlier crops and those of much better quality than the unimproved stocks.

With so many elements involved, business methods have required also a double-entry sys tem of bookkeeping and an elaborate card file by which complete records are kept of every crop. from seed selection to the disposal of the prod-

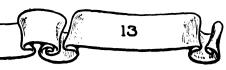
Knowledge of Markets

Telephone or telegraph communications, or both, to New York and Philadelphia are a part of the daily routine, and the market which offers the best price receives the shipment. In this was only are prices obtained that are in keeping with the extra labor and brain-work involved. Conditions at other large producing centers and markets are likewise known, so that the management here may hasten or retard the marketing of products.

The fact that \$22,000 revenue was obtained in a single season from this farm demonstrates that modern methods, with every practical device. will work wonders in agriculture as in other vocations. The majority of farmers in our territory have adopted telephone service, but not all have seen fit to save steps on the farm by the use of our monitor switchboard service as has this progressive farm management in our Bridgeton District.

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THE TELEPHONE NEWS



Dittsburgh Division ~ z.z.HUGUS, Division Correspondent

Butler District

Just recently the motor operating the charging machine for the storage batteries in our Dubois central office broke down, the accident having occurred on Saturday evening. The Plant representatives were somewhat in doubt as to whether a replacing motor could be received without delay. A call was placed for the Western Electric Company in Pittsburgh, and although the members of the department of that company handling matters of this kind had left for the day, a Mr. Montgomery was present who received the messages and arranged for shipment of the motor, which was received at Dubois at 1:30 A.M. Sunday.

During the week ending June 14 one of the visitors shown through our Butler central office was a State Factory Inspector, who was very well pleased with our arrangement and the manner in which our employees were cared for.

Another result of what persistent effort will do is shown in the fact that after approximately five years of canvassing, Manager Steele secured an application from a Butler merchant for service in his shoe store.

The following Plan "A" applications have been secured during the last month by the Dubois and Oil City Managers:

Dixon Tel. Co., 9 stations; Smithtown Tel. Co., 11 stations; and Billiken Tel. Co., 6 stations.

In each of the above cases subscribers have purchased instruments and constructed considerable pole line.

The Butler Local Manager secured two applications for multiparty service which required that each applicant furnish and erect 23 poles to connect with our line. This was accomplished in territory where strong competition exists and the opposition company was willing to furnish and erect the necessary poles, but the applicants preferred Bell service.

In H. E. Cumberland, located at Zelienople, Pa., we have an example of the kind of Plant man that really counts. Ever since mention was made a short time ago of his good work in securing applications he has been trying to make that record look insignificant by showing how easily it can be surpassed.

The second instance of private branch exchange sold in the New Kensington District during the first week of June consists of a monitor switchboard and 3 stations for three Tarentum physicians.

From a suggestion slip received from H. S. I omers of the Plant Department at Tarentum, \$24 worth of new business was secured.

An application secured by the New Kensington Manager from the Logan Trust Company at New Kensington covering private branch exchange service with 4 stations supersedes an individual line and 3 stations. At the present time additions are being made to the trust company's building, which when completed will require the installation of at least four more stations.

On June 2 a meeting was held in the office of

Traffic Chief Brown at Butler which was attended by the District Chief Operator of the Butler Sub-District, Chief Operator and Operators. New operating rules were discussed and all present made familiar with them.

WARRICK.

Erie District

An unusual case of toll line trouble was encountered the other evening near Warren. About eight o'clock Wire Chief Binns was notified that the lead known as the Kane-Meadville line was in trouble. This lead carries five A. T. & T. circuits and eight B. T. of Pa. toll lines.

Mr. Binns got in touch with three of his men, and being unable to secure an automobile, the four started out with a team and wagon.

The trouble was found about five miles west of Warren and was caused by a farmer thought-lessly building a brush fire under the lines, so that nearly every wire on the lead was completely burned.

Aided by a "Pres-to-lite" automobile lamp the men were enabled to have all the circuits working at eleven o'clock that night.

The "First Aid" outfits have been received for the Bradford Sub-District and placed on the wagons.

The local paper at both Bradford and Warren commended our Company, through their columns, for the efforts which are being made to safeguard the employees.

Meetings have been held at Bradford and Warren for the purpose of instructing the men how to use the outfits intelligently. YOUNG.

Johnstown District

Rural development has been a problem in the Greensburg Sub-District that was comparatively hard to solve in the earlier days, but the rural telephone is now a rule in nearly every farmer's home in this vicinity, at least in the home of the progressive farmer.

The first service company organized was the Murraysville Telephone Company in 1904, and many trips and conferences were necessary before the deal was consummated. The success of this company was the incentive to go after others, and the result now is that we have five connecting service companies with a total of 735 telephones and 15 plan "A" companies, which, with our own multiparty lines, total 870 rural subscribers, or a grand total of 1605 subscribers in the country districts.

We also have two Plan "A" companies now "building" with a list of 34 subscribers in the two companies and they have been connected during June.

Jeannette is the only town in Greensburg Sub-District that has no Plan "A" companies connected. However, the farmers surrounding this town are supplied with 7 lines and 54 stations built and maintained by our Company, and these lines are so located that the countryside in every direction is covered.

Two new positions have been cut in the magneto switchboard at the Derry office.

The Barnesboro operating room has been thoroughly renovated.

A local butter and egg merchant in Johnstown congratulated the Traffic Department the other day upon completing a call to Chicago in four minutes and one to Watseka, Ill., in three minutes. The transmission was perfect.

A telephone message from Strongstown to Blairsville resulted in the recovery of a stolen

horse and the capture of the thief by the Blairs-ville constable.

During May the Indiana joint office transferred over \$3000 by telegraph. This is the largest amount thus far sent from the Indiana office, and shows the popularity of the Western Union money transfer system as well as the efficacy of that company's newspaper advertising campaign.

Pittsburgh District

Conferences of Local Managers have been held at the several District Managers' headquarters in the territory of the Central District Telephone Company, for the purpose of discussing directory advertising. A Pittsburgh Publicity representative was also present at these meetings.

Hereafter the Company itself will publish and sell space in its directories, and these conferences have been kept with a view to acquainting the field forces with the points of selling directory advertising service.

Uniontown District

The importance of a certain toll ticket and how it saved a man from being placed in the Fayette County jail is illustrated in the following. Several weeks ago a book agent, who was canvassing Connellsville, found a purse on the street containing \$80. Shortly afterwards he was accosted by a stranger who represented himself as a traveling salesman for a Pittsburgh firm. The stranger described and laid claim to the parcel which had just been found, and the book agent handed it over. Later the real owner came along, and after learning that someone else had received the money, had the book agent placed under arrest for larceny. The defendant made immediate use of the telephone to get into communication with the Pittsburgh firm which the stranger was supposed to represent, and learned that no such person was employed by it. When the case was called for trial in court the book agent's attorney asked our Company to be allowed to use the toll tickets which represented the calls, to convince the jury that his client was innocent, showing that he had acted in good faith in trying to locate the person who wrongfully got the The attorney was successful and his client was acquitted.

An employee of the Fayette County Gas Company at Connellsville was a prisoner in the building occupied by a local wholesale grocery company for upward of an hour the other morning. Shortly after he had entered the building for the purpose of reading the meter, the store had been locked. After all efforts to escape through the doors and windows had proven futile, he telephoned to the Gas Company's office. A friend then located the owner and had the store unlocked.

Twelve hundred feet of new cable is being strung in Belle Vernon.

A Bell lineman in Clarksburg, W. Va., while at work on a pole the other day saw an employee of the Electric Company come in contact with a live wire. Realizing the necessity of prompt action, the lineman called the local operator, who in turn notified the Electric Company of the accident and the current was shut off in less than two minutes. Although the unfortunate man was painfully burned, the accident was not fatal owing to the thoughtfulness of the lineman and the promptness of the operator. The following morning the superintendent of the Electric Company called the chief operator and expressed to her his gratefulness to our Company.

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July 1

Wheeling District

When the booklets, "Our Telephone Service," reached East Liverpool, Ohio, the Local Manager handed several copies to The Boosters' Club. an organization for advancing the interests of the town. Incidentally this club had booked Elbert Hubbard for a lecture. On his arrival he noticed our pamphlet, picked it up, and asked where it came from.

When told, the distinguished writer asked to be taken to call on "that" Manager. A trip was made to our office, where the Roycrofter had a pleasant chat with Manager Swaney discussing the telephone business, during which Mr. Hubbard expressed his warm admiration of Mr. Vail; then Manager Swaney was asked to accompany him on a tour of inspection through the town.

A bit of good work is told of Timekeeper Lawton while at Wellsville, Ohio:

The woman with whom our men boarded was without our service. Many times while they were there a telephone would have been welcome, but nothing was said until the day of departure. When Lawton paid their bill he asked how it happened that she was without service. He was told that she had been a subscriber but had been unable to bear the expense of it. Tactfully he suggested deducting the amount from the board bill, that she might take advantage of present prosperity and enjoy having a telephone to run She readily consented, and an additional telephone is on duty at Wellsville.

The following substance of an editorial appearing in the Wheeling Register will be of interest to operators:

"The telephone switchboard operator has at last received a square deal.

"Heretofore she had been a much-maligned young person and has been compelled to sit quietly at her switchboard and take it all. In the play which appeared at the local theatre last Monday night, Wm. C. deMille has come to her rescue and put her on the stage just as she is.

"People think very little about the telephone girl; she is just a part of the mechanism, like the bell and the green cord, and few people give her any consideration because they never think of her at all.

"She is a great power in the land, however, and this you will realize if you have seen her in 'The Woman,'" MISS DIEHL.



Irrigating on Bridgeton, N. J., Farm (See page 1)

Gently to hear, kindly to judge.—Shakespeare.

The third annual meeting of the Telephone Pioneers of America will be held at Chicago, October 16 and 17.

The everyday cares and duties which men call drudgery are the weights and counterpoises of the clock of time, giving its pendulum a true vibration and its hands a regular motion; and when they cease to hang upon its wheels, the pendulum no longer swings, the hands no longer move, the clock stands still.—Longfellow.

The Main Section of the New York Telephone Society has a membership of 2663 and its meeting place has had to accommodate an average of 860 who attended the 1912-1913 meetings.

Look out that someone does not go through your pockets while your hands are engaged in patting yourself on the back. Be careful that a foul ball does not strike you amidships while you are looking to see if the grandstand saw your previous play .- Author and source unknown.

China has borrowed \$125,000,000. If we were permitted to have our say in how much of it should be expended, would not the majority of us decide on means of transportation and communication?

There is in every true woman's heart a spark of heavenly fire which beams and blazes in the dark hours of adversity.-W. Irving.

The number of stockholders of the American Telephone & Telegraph Company has for a long time been steadily increasing, but during 1912 it gained rapidly. On January 1 of that year it was 47,000, a year later 50,000, and now the figures are 54,000.

That action is best which procures the greatest happiness for the greatest numbers.-Hutcheson.

A contemporary points to an American millionaire who is up at sunrise and has his daily game of golf regardless of the offerings of the weather man-fighting for health as aggressively as he fights for wealth.

Wonderful things, health and wealth! And too many of us, unlike the man of millions, are neglecting the one in the everlasting scramble for the other.

Facts are stubborn things.—Le Sage.

S. H. Held, a directory advertising salesman who gets the business in our territory as well as in that of the C. & P. Company, has lately become famous as a fishist. The Transmitter vouches for the statement that with a rod and line he caught rockfish weighing from sixteen to twenty-three pounds each. The photograph reproduced by that reliable contemporary looks suspiciously like two prints cut, pasted and rephotographed for a single job; but far be it from us to doubt what's been sworn to! They saw the goods.

The man who has the opportunity to scan directory columns for odd names will have his hands full, perhaps, in discovering one that will precede alphabetically that of Mr. Albert A. Aal, listed in the Reading, Pa., directory. Inasmuch as this subscriber has two other listings for business stations, and one is the A. A. Aal. Company, it would look as though his name will remain ahead of anything but a created trademark chosen with only the object of getting at the top of the list.

It is not permitted to the most equitable of men to be a judge in his own cause.-Pascal.

A \$200,000 telephone building is being constructed in Memphis, Tenn., by the Cumberland (Bell) Company.

There never were in the world two opinions alike, no more than two hairs or two grains; the most universal quality is diversity.-Montaigne.

The changing of street grades and moving of curb lines are sources of trouble in the telephone man's job everywhere. Pittsburgh men know that only too well, as do our men in several other places. The Southern Bell Company has just gone through with the experience in Atlanta, (ia. and not long ago at Mobile, Ala., as is well illustrated and described in the June Southern Telephone News. In the Atlanta grade changes, thirteen manholes were raised with four- and sixmultiple clay ducts.

It is a good thing to learn caution by the misfortune of others.-Publilius Syrus.

Elaborate telephone equipment has been provided for the visitors at the fiftieth anniversary of the battle of Gettysburg. When the railroads advised the townspeople to provide necessities for a week, in anticipation of limited freight service, the telephone men took advantage of the warning and arranged for abundant facilities. [An article on "Seeing Gettysburg" appeared in our October 15, 1911, issue.l

He pleases all the world but cannot please himself .-Boilcau-Despreaux.

Mr. P. O. Coffin has become Auditor of the New York Telephone Company. Mr. J. R. Y. Savage has assumed a like position with The Chesapeake & Potomac Telephone Company, and at Baltimore Messrs, H. C. Ross and F. H. Kenworthy have been appointed Auditors of Disbursement and Receipts respectively. All are former Philadelphians, and these changes will therefore be noted with additional interest in our Company.

Now every field and every tree is in bloom; the records are note in full leaf and the year is in its highest beauty.-Virgil.

There are now over 500,000 telephones in service in New York City, and sixty-seven telephone central offices.

"Conscience is the champion of justice."

Telephone service, which for some time has been furnished between France and Great Britain. is to be established between the latter country and Holland. A 102-mile cable costing \$310,000 will be required.

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During May the Atlantic District with \$873 led the Eastern Division in the amount of revenue resulting from the suggestion slips. Wilmington (\$681), Norristown (\$636) and Trenton (\$539) were the leaders among all the other districts.

The highest amounts were derived in the Plant Department from the slips furnished by the fol-B. G. Simpson, Bryn Mawr; E. S. Rvan, Wilmington; W. Burroughs, Trenton; E. Nace, Quakertown; and S. Tarbutton, Wilmington. Others who did well were H. A. McIlwain, H. E. Hack, J. Hitchens, F. W. Seeber, W. N. Booz, O. H. Williams, C. G. Lorenz, J. R. Val-

When the prize did not come he immediately put in a telephone call, but when told of the rate he decided not to talk.

Storm Hits South Jersey Toll Line

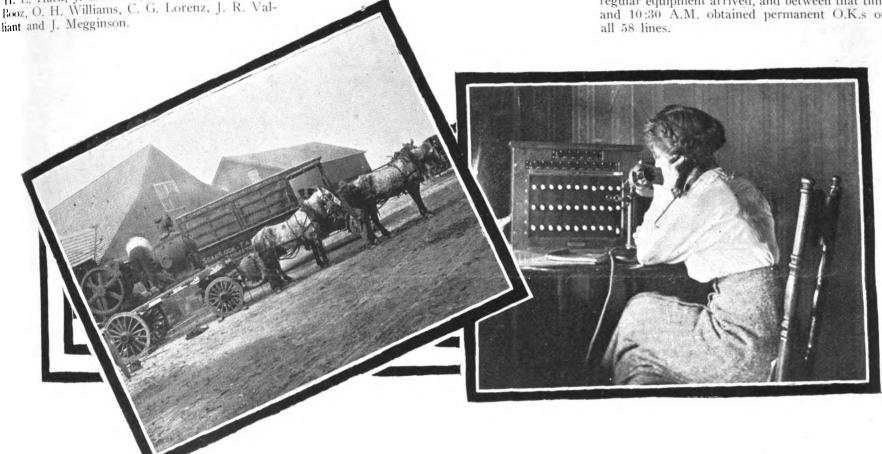
By J. H. Hartley, District Engineer, Camden

Between Camden, N. J., and the seashore towns there are two main toll leads known as "No. carrying Atlantic City trunks only, and "No. serving Atlantic City, Ocean City, Cape May, Pleasantville and Wildwood as well as the intermediate places of Blackwood and Williamstown. A wind and rain storm, which was strongest

arrived from Haddonfield with a truck carrying men and equipment, and an hour later Foreman Fred Owens arrived with another truck similarly loaded. Two gangs were employed to insure the speediest clearance.

To indicate how early morning and odd time conditions are met, chauffeur C. Davis and Foreman M. Dudley, who live at Riverside, arrived at 3 A.M. via the "paper trolley"—the one that carries the early edition of city newspapers.

By using the emergency cable, the No. 2 and 3 circuits to Wildwood were O.K.ed at 3:15. The top cross-arm leads were O.K.ed at 3:30 and the others at half-hour intervals. Thus by 6 A.M. Messrs, Culin, Dow and Heckenhorn had obtained temporary O.K.s on all circuits of the six cross-arms. At 6:45 A.M. the other men and regular equipment arrived, and between that time and 10:30 A.M. obtained permanent O.K.s on



Pump Machinery for Irrigation Work and Monitor Switchboard, Both in Use at Bridgeton's Modern Farm

Trenton District

Princeton University Department of History, Politics and Economics, 15 Alexander St., Princeton, N. J.

June 10, 1913.

Del. & Atl. Tel. & Tel. Co.,

216 E. State St., Trenton, N. J.

Dear Sirs:—Please find enclosed check to your order for

Please allow me to express to you my entire satisfaction with the service rendered, and thank you and your employees for their uniform courtesy and efficiency.

Very truly yours, Wm. Starr Meyers. GARWOOD.

Wilmington District

That children readily appreciate the possibilities of the long-distance telephone was clearly demonstrated a few days ago when a supply company in western Pennsylvania offered a prize for selling case needles. A child in Wilmington sold a case and requested a certain prize as a reward.

in the southern section around Gloucester and Westville, cut off the "No. 2" line, Monday evening, June 16. At 10:15 P.M. the toll testing operator notified W. C. Culin, Camden Suburban Plant Chief, of this break, and five minutes later Haddonfield Wire Chief Dow and troubleman L. Heckenhorn had been located. They had just sat down at a church supper, but the good things were not for them.

Knowing that the road parallel with this line was being repaired and in poor condition for machine travel, the latter two men drove over Mt. Ephraim Pike with a one-horse team and at 12.45 A.M. found the break about a quarter mile north of Bellmawr, or a little over a mile southeast of Gloucester. There a large cedar tree had swept all of the 58 wires in this lead to the ground. The limbs and foliage of some trees, that fall over the lines, do so without serious damage as they slip off of the wires, but cedars stick and usually cause breaks.

Mr. Culin notified Camden District Foreman E. L. Cox to assemble his men, and at 1:30 A.M. left Camden in one of our runabouts. He carried 650 feet of 10-pair emergency cable and arrived at the break at 2:45. At 4:30, Foreman M. Dudley

It so happens that this pole is a transposition pole, i.e. carries wires transposed at that point, thus adding to the difficulty of replacement; but the work was satisfactorily done and with remarkable speed. Road repairing and fallen trees made it necessary to drive through sections of neighboring territory to reach the damaged lead.

Storms had injured our plant in other parts of this district, and the same men were on duty throughout the following day as if no all-night work had been done.

At Westville a roof was blown through a tenwire lead of subscribers' lines on River Drive, but repair work here during the day was accomplished with no proportion of the difficulty experienced in the toll lead job. In the latter case the darkness made it necessary to use lanterns on the poles and to direct the rays of acetylene lamps up the poles.

The "affected" towns were not affected at all by this break. Occurring as it did in the night hours, repairs were made between traffic needs. Breaks of this nature might in some cases require a day and a half to clear, with much rerouting of traffic and much inconvenience during their continuance.





Our Societies

Northern Pennsylvania Telephone Society

On the evening of June 2 the employees of our Company gave a banquet at the Hotel Jermyn in honor of H. L. Badger, former District Plant Superintendent at Scranton, who was recently promoted to Plant Superintendent of the Pittsburgh District.

Mr. C. H. Linde as toastmaster kept things moving by introducing many excellent speakers. All united in wishing success to the Superintendent in his new field. Mr. Badger in thanking them said he could hope for nothing better than to be associated with as able and willing workers in the Pittsburgh District.

Among those present were C. P. Williams, C. F. Brisbin, E. G. Simon, J. B. Thompson, Frank M. Stanton, R. S. Harkins, A. D. Campbell, R. O. Deming, W. M. Most, W. A. Hughes, D. M. Bevan, J. E. Rich, W. R. Barrett, A. G. Lees, A. R. Dykeman, George Bannon, K. W. Butterworth, F. S. Strock, Thos. McKeon, A. G. Nothacker and Henry F. Doster.

The Transposition Club

The final meeting of the 1912-13 season was held in Hotel Henry on June 19, when Mr. L. J. Billingsley, District Manager, Johnstown, Pa., read a paper on "The Johnstown Campaign."

The election of officers resulted in the follow-

President, J. M. Griffith; Vice-President, M. J. Bishop; Secretary-Treasurer, D. Hester. Governing Board—Z. C. Gillespie, G. B. Bayly, J. H. Moore, G. E. Lawlor.

Two Allentown Club Outings

The annual outing of the Bell Triangle Club of the Allentown District was held at Central Park, Rittersville, Pa., June 7. A baseball game was played between the Bell Triangle Club and the 613 Club, with the 613 Club as winners. Bowling and various other games as well as dancing were indulged in during the day. Supper was served in the restaurant at the park.

The outing of the 613 Club, formed by Plant men, was held June 14 at Dorney Park, Pa. Baseball and various other games were the features of the day. A chicken and waffle supper was enjoyed at the restaurant.



Trenton Plant Club Closes Season with a Banquet

The Trenton Plant Club celebrated a very successful year with a banquet held on the evening of June 12 at Gaertner's Café. There were fifty members and guests to partake of a most excellent dinner, where good cheer lurked in every corner. The tables were decorated and the Blue Bell menus contained a picture of the building which is now being torn down after having served for many years as the office quarters of the Company. The presentation of a number of toys with

special significance to some of the club members caused considerable fun.

In fact everything showed that the Banquet Committee had not shirked in the preparation for the celebration. This committee consisted of H. E. Hack, R. S. Crist, F. Sista, A. L. Spears and J. H. Daly, toastmaster.

The guests present were J. H. Carroll, F. I. Daly, C. R. Fairchild, G. B. Garwood, W. T. LaRoche, J. A. Mann, D. S. Raynor, J. M. Repplier and W. F. Smith.



Back on duty and in excellent health after eight months of rest and recuperation

Organization Changes

The Bell Telephone Company of Pennsylvania

C. K. Baker, a Central Office Man at Doylestown, Pa., has been appointed Wire Chief at Dover, Del.

C. R. Leonard, a Central Office Man at Dover. has been advanced to Wire Chief, Bryn Mawr,

T. J. McCormick, a Main Line Combination Man, has been made a Private Branch Exchange Installer at Wilmington, Del.

G. K. Derone has been promoted from Installer to Night Central Office Man at Williamsport, Pa.

W. J. L. Roop, formerly Chief Draughtsman, has been appointed Specification Writer, Philadelphia Plant Department.

W. B. Weicht, an Erie District Climber, has been made a Foreman.

F. Crozier, a Special Climber at Wilmington, Del., has been advanced to Gang Foreman.

The Central District Telephone Company

L. T. Paxson, Directory Clerk in the Publicity Manager's office, Philadelphia, has been transferred to Pittsburgh in the same line of work.

J. L. Fosnight, Central Office Man, and J. D. McMasters, Fieldman, have been made Wire Chiefs in the Pittsburgh and Greensburg Districts respectively.

W. C. Vaughan, formerly Toll Wire Chief, has been appointed Plant Wire Chief, Wheeling Dis-

R. L. Kidd, Toll Line Inspector at Johnstown. has been made Plant Wire Chief, with headquarters at Indiana, Pa. Earl Cline, Wire Chief, has been advanced to

Plant Wire Chief at Franklin, Pa.

C. W. Russell, formerly a splicer, has been advanced to Cable Foreman, Greensburg District.

Stop, Look and Listen

This sign is displayed by railroad companies at all grade crossings where there are no gates and where there are no watchmen. That it pays to observe this warning is shown by the follow-

ing report of an accident: A repairman was riding a motorcycle to clear some trouble. His route was upgrade along a road lined with houses on both sides. The railroad station obstructed a view of the tracks 50 that an approaching train could not be seen. The man sounded his horn, but did not hear the train as it was stopping at the station. The result was that the motorcycle collided with the engine and the rider suffered severe bruises and wounds He will probably be absent from duty for three

This accident could have been avoided by the observance of the customary rules of the road in crossing railroads where the track is not open to view.



THE TELEPHONE NEWS VOL. IX PHILADELPHIA, PA. JULY 15, 1913 No. 14



Photograph Coppright 1913 by International News Service Pickett's Charge repeated on historic site July 2 at famous Bloody Angle by Pickett's survivors and those of the Philadelphia Brigade

The Telephone at the Nation's Greatest Army Reunion

HAT is most typical of the whole Gettysburg reunion which the newspapers have been describing?

Fraternization, the keynote of the Fiftieth Anniversary Celebration of the Battle of Gettysburg, is the one predominant impression gained by a visitor there. As the Blues and the Grays arrived at that historic site, during the week preceding July 4, 1913, one could not but feel an overpowering sense of emotion. It is of the type that arouses his or her own patriotism and joy that fifty years of national progress have en-

tirely erased the lines between the South and the North.

Fifty years may be expected to bring many changes in the circumstances surrounding almost any event, but here, where blood and bullets had capped the climax of the nation's internal strife, could be seen in the celebration just past the most remarkable reunion which, considering all conditions leading to it, the nation's war representatives will ever behold.

Regardless of the colors of their uniforms and of other differences, hundreds and thousands of men past the threescore and ten milepost of life literally fell in each other's arms and embraced again and again. Repeatedly, since the bloody struggles of the sixties, have the nation's heroes

recalled the opposing forces, but those recollections were only fanciful. Here, in 1913, at Gettysburg, were many of the same men, then young and sturdy but now aged and reminiscent, gathered to recall old times and to grasp hands as brothers.

Remarkable Contrasts

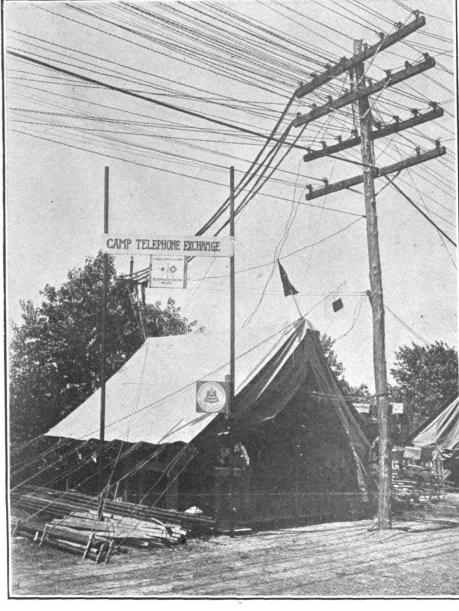
To-day a farmer peacefully reaps his grain in the very field which in '63 was planted with wheat but was trodden down and stained with human blood. Yes, there are indeed many changes! Monuments, statues and individual grave-markers—mute appreciations of those who still benefit by this colossal sacrifice. Means of travel and

(Continued on page 2)

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UPPER: Outside of Signal Corps Central Office Tent, Gettysburg

LOWER: Switchboard and Equipment of the Signal Corps, U.S. A., Gettysburg, Showing Lieutenant Taylor and Assistants

were kept busy completing approximately 300 out-of-town calls during the same period, to sav nothing of the peak local business.

Incidents Where Time Counted

Various and many were the incidents in which the telephone figured. One aged Southerner, who with a new-found brother in blue had climbed to an interesting point on the battlefield, was stricken with the heat. The "boy" in blueequal to the emergency—telephoned to one of the Pennsylvania Department of Health hospitals and in a short time had the satisfaction of hearing the doctors and nurses say his friend would soon be

But the case proved to be serious; heart trouble had developed. For the time being they could not ascertain in what part of camp the man's friends were located. However, they knew his name, and the Northern veteran supplied the home town address of Greenville, South Carolina. A telephone call found the veteran's daughter, and she was promptly summoned. The old friend in blue who stayed near throughout the whole incident then turned to the doctors and said: "I guess they ain't no North and South when we Yanks can talk right to a Johnny's home as easy as that They couldn't be no war now, for if they was somethin' to fight about, one side would jus' natch'lly git the other on the long-distance telephone and settle the trouble."

There was also the sad case of veteran Prof. C. S. Albert of Washington, D. C. He became suddenly ill and died later, but not before his relatives, who had been notified by Long Distance, reached his bedside at Gettysburg.

One veteran, who had either lost or spent the money intended for his return, knew exactly what to do; he went to a telephone and asked if there were any way by which he might telephone home without money. A call was promptly reversed and within a day he was in receipt of a telegraphed money order.

Finding and Aiding Veterans

During the camp days the telephone was of inestimable value in assigning the veterans to their proper locations and in finding their tents.

Gettysburg, 1913

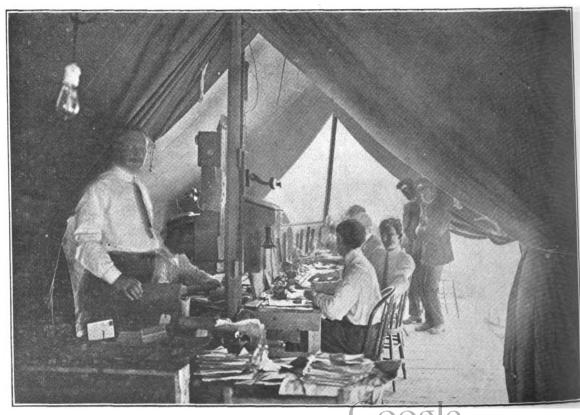
(Continued from page 1)

communication, beyond comparison with those of Civil War times, now supplement the improvements in all other lines.

In 1863 the rival generals were forced to depend on mounted orderlies to dispatch their directions back and forth along the lines. In 1913 the facilities for communication in this camp of peace indicated remarkably well what could and would be provided in a present-day conflict. General Reynolds, that brave Pennsylvanian whom General Huidekoper credits with being the greatest soldier in the Army of the Potomac, had to travel miles to a conference of generals held at 9 A.M., July 1. While hurrying back to spur on his advancing troops, he was struck in the head by a bullet. To-day electric communication would entirely eliminate personal trips and would enable the dispatching of communications without danger from shot and shell.

Modern Army Telephone Service

Typical indeed of to-day was the telephone service provided for that huge camp of patriots. With everything else as modern and sanitary as generous State and Federal appropriations could supply, it was only fitting that the greatest of all necessities of science be in accord. That the telephone was a big factor may be realized when it is stated that the Signal Corps (U. S. Army) camp exchange handled an average of 5000 calls a day, while at our central office four or five operators







when little excursions around the camp and battlefield confused them so that they were unable to find the way back. Lieutenant Taylor, in charge of the camp telephone service, was appealed to repeatedly by men who had lost themselves or their newly-found comrades. method was to telephone the locality to which they had been assigned, or, in case of separation, to start a searching party of Boy Scouts and regulars for the missing ones. Great success was experienced in this interesting work.

We in the telephone industry are especially interested in the actual provision made for the veterans' comfort, both telephonically and in other particulars. The camp covered over 500 acres, on which were spread 5500 tents-more canvas than had ever before been spread in one spot by the United States Army. It was planned to be large enough to accommodate 52,000, and the daily attendance at Gettysburg, including veterans and visitors, was placed at 60,000. The estimated cost to the national and various state governments was \$3,000,000, of which the Pennsylvania Legislature appropriated \$485,000.

System in Every Detail

The work to be done was systematically assigned to experienced organizations. The U.S. regulars picketed the camp and took care of all arrangements. There were 1270 of these, commanded by Major J. C. Normoyle, and subdivided into two battalions of infantry, one squadron of calvary, one battery of artillery, one company of engineers, one detachment of Signal Corps, and 200 army cooks. Boy Scouts, numbering 500, registered the veterans, saw to their immediate wants, and directed them to the tents which they were to occupy for the week. The Pennsylvania State Constabulary patrolled the town of Gettysburg and acted as traffic police.

The sanitary measures as well as the food provided were of the best. Among them, artesian well water had been piped through the camp and "gusher cups" were everywhere. At the base of the vertical pipes leading to these gusher cups, ice was packed to insure refreshing and wholesome water.

U. S. Engineer Corps is assisting LOWER: Edgar P. Hamilton our Local Commercial Representative making a

collection from

a coin-box at

Gettysburg

UPPER: Veteran Clark A. Lamont

Co. H

46th Pennsylvanis

telephoning

from Gettysburg

to his home in

Coudersport, Pa.

from an

Information

Bureau

Bell Station.

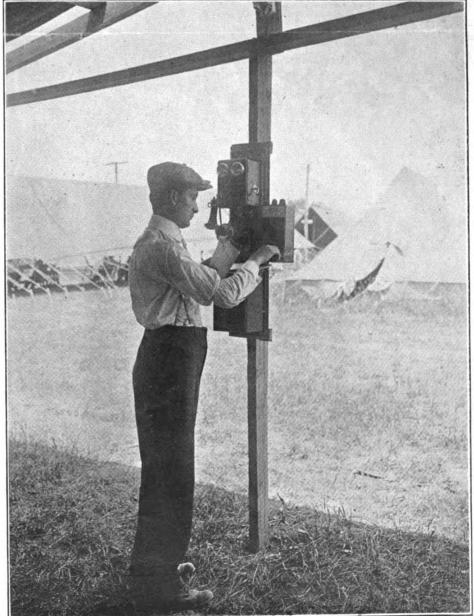
John Yeager

The Pennsylvania Department of Health was well represented. Recognizing the condition of health of many of the expected veterans, railroad combination baggage and passenger cars were sidetracked and the seats were removed to allow room for the cots. The baggage sections were occupied by the physicians and nurses in the preparation of bandages and medicines. Here were also the physicians' offices and the "hospital" telephones. The Medico-Chirurgical Hospital in Philadelphia loaned ambulances, while nurses and physicians came from various sections of the state. Cards locating all relief stations were distributed throughout the camp and other sections of the historic site.

Rush Service

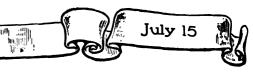
It was often stated at headquarters that without the telephone service continued confusion would have reigned and many of the veterans would never have found their quarters. On the first day of the camp there were 102 requests for the ambulances. These emergency calls preceded all other business. The Government had four day operators, one night operator and ten repairmen divided into three gangs. The latter used motor-cycles borrowed from the Philadelphia Police Department. As Lieutenant Taylor stated, these mounted men were of the greatest assistance in making quick removals of stations unsatisfactorily placed and in aiding veterans who were seeking comrades.

(Continued on page 4)



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Physician (standing) directing the bandaging of sprained wrist of a National Guardsman, Gettysburg

Gettysburg, 1913

(Continued from page 3)

The U. S. Army Signal Corps did yeoman service with its telephone equipment. Lieutenant J. G. Taylor of this corps, commanding a detachment of twenty enlisted men, arrived on duty June 11, and the telephone equipment arrived five days later. Then work was begun and 126 miles of twisted pair wire were run, mostly on electric light poles, through the camp. Outside, short iron "lance poles," used by the army, had to be set. In all 93 stations were connected to this system, serving the entire camp and outlying stations on the battlefield within a radius of approximately 38 miles. Little Round Top, the Wheat Field, the Peach Orchard, Lee's Monument, and all other historic spots were connected. The private branch exchange consisted of a two-position switchboard with two extra talking sets for the Lieutenant and his assistant, who acted as "Information." Although this was nominally a two-position equipment, but one operator could work at a time, and he was often almost overwhelmed with traffic. On the first day of camp—June 29—23,000 people arrived, and none knew where to go. The guides, regulars and Boy Scouts were overloaded with work, and being themselves partly unfamiliar with the grounds, were greatly at sea. As much of this work came to the telephone equipment, it was estimated that 6000 calls a day were handled.

Our Special Plans

Our Company installed one extra switchboard position equipped with 50 lines, making a total of three positions arranged for local, toll and long-distance work. Two portable desk sets were also installed, with head receivers for recording and two for obtaining information. On these lines special operators placed information and out-of-town calls.

To obtain the best long-distance facilities, A. T. & T. trunk lines were cut at Biglerville,

five miles distant, furnishing five direct circuits: Gettysburg-Pittsburgh, Gettysburg-Newtown Square, Gettysburg-Dallastown, Gettysburg-Shippensburg and Gettysburg-Baltimore. These were in addition to the regular trunk lines through York.

Beside our regular service in the town, 14 public telephones were placed in the camp located at information bureaus. At each of these there

was also a U. S. Army signal service station. Boy Scouts were on duty at these information bureaus to provide messenger service. At the press camp and at two Western Union stations there were also public telephones. At the Governor's headquarters two stations were placed, and in hotels three other additional ones. At the largest hotel, "Gettysburg," an attended public telephone equipment was provided. There were five telephones in private cars of headquarters chiefs and railroad chiefs.

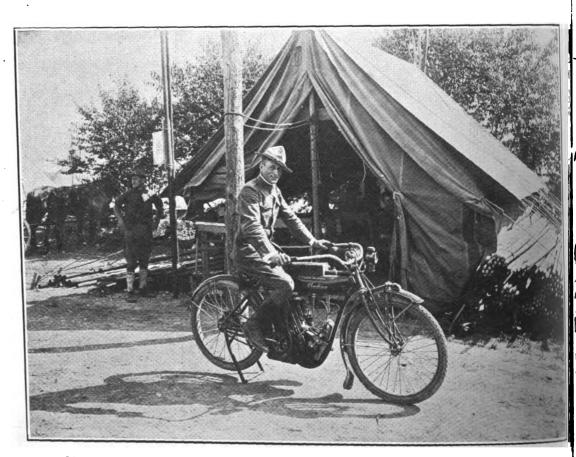
To connect these special stations 90,000 feet of twisted pair wire was strung on electric light poles. Also 7000 feet of 15-pair emergency cable was required. A number of private wire stations were installed in headquarters and in the private cars of railway companies. Colonel Schoonmaker, Vice-President of the Pittsburgh and Lake Eric Railway Company and Chairman of the Gettysburg Fiftieth Anniversary Celebration, arrived at eight o'clock on the evening of June 28 and asked for service in his private car. In an hour his station was in service.

Between Gettysburg and Harrisburg the Pennsylvania Railroad Company had a private line, and two extra circuits to Harrisburg were supplied for the Western Union.

To do all of this work a gang of five men were there under the direction of George U. Moyer, Plant Wire Chief, York District. During the celebration three extra linemen and installers were on duty under Charles K. Hartzell, Combination Man, Gettysburg.

The placing of stations and regular Commercial work were directed by John O. Beam, Local Manager at York, and Edgar P. Hamilton, Commercial representative at Gettysburg.

The Western Union had four stations on the grounds and 24 telegraph operators, who worked in three shifts of eight each. The sending station



Lieutenant J. G. Taylor, U. S. Signal Corps, who superintended the installation of and wiring for 93 stations—Government telephone service at Gettysburg

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was located at the press camp, where story after story was filed to newspapers in every section of the United States.

Traffic Department Well Represented

Too much credit cannot be given to our operators. Nearly every call required information service, and expert work was the only kind that could satisfactorily handle the peak loads of Long Distance and Toll traffic. The operators were on duty in shifts of four or five, and when off duty were allowed the use of the Company's automobile to give them the necessary fresh air and recreation. Information work was often supplied by Mr. J. T. Harris, Traffic Supervisor, Harrisburg, and M. S. E. Gill, Traffic Superintendent, who was also there, assisted in routing when that was necessary. Directories of the leading cities and of the near-by points were on hand to facilitate the work. The regular operators at Gettysburg number five, but eight were on duty during celebration week. The regular operators were the Misses Anna McSherry, Operator in Charge, Goldie Widder, Anna Eckenrode, Carrie Codorie and Margaret Maguire. The additional operators were Misses Harriet McCleary, Chief Operator at Harrisburg, Fannie Hengst, Chief Operator at York, and Miss Myer, Operator at

All in all it was a happy culmination of a hatchet-burying celebration. Lincoln's speech was a wonderful prophecy. And perhaps the veteran was not far from right when he said that there could be no South and North because of the existence of the telephone. It is essentially the instrument of commercial battles rather than of sanguinary ones. Its long-distance lines are like growing tendrils wrapped so closely about all points of the compass that there is no place for sectionalism. We are indeed a united country.



Pennsylvania Department of Health Hospital Car, Gettysburg, showing Dr. Altman of Uniontown taking a patient's temperature and Miss Henry, a nurse, answering a Bell call

In the right-hand column are three of our representatives whose work for the Gettysburg celebration was whole-hearted and efficient.

Charles K. Hartzell Combination Man Gettysburg

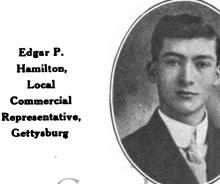




Western Union Sending Station in Press Camp



Miss Anna McSherry, Operator in Charge, Gettysburg



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July 15

Some Interesting Facts Observed by the Traveling Auditors

By C. A. Janke, Traveling Auditor

HE instructions contained in the new routine for the audit and examination of the accounts and records of the various departments of the Company enlarge the duties of the Traveling Auditors and enable them to devote closer attention to the observance of routines affecting accounting and other matters, and also the careful study of all clerical methods and their purpose to the end that they may be able to incorporate in their reports facts that will be useful to the supervising officers.

Heretofore the duties of the Traveling Audi-

tors were confined to the audit and examination of working advance funds and the unbanked col-

lections at Commercial offices.

The reports of the Traveling Auditors have shown some very interesting facts and have doubtless been productive of beneficial results to the Company, and have also enabled the supervising officers to establish new methods and make improvements in present ones.

The nature of the duties to be performed by the Traveling Auditors, their repeated visits to the various offices of the Company, and coming in contact with the different methods of conducting the affairs of the Company, place them in a position to distribute information of value in minimizing the work of the offices.

The following will describe some of the observations of the Traveling Auditors since the new routine went into effect:

Active Stubs

Some offices file all active stubs in one file. while others separate the stubs carrying balance due items from the stubs that show only current charges, and by doing so much time is saved when the stubs are gone over in calling subscribers in reference to their accounts.

In a large office the time saved by using two files is very considerable. It has also been found good practice to file all of the stubs of subscribers who are temporarily disconnected for non-payment in a separate place in the file for convenient handling.

Credit Memoranda

It is customary, in most offices, to allow the carbon copies of credit memoranda that have been issued to remain in the book form or cover to which they are bound. One office was found where the copies are removed from the cover and placed in a file in alphabetical order. The latter plan has advantages over the other in that it permits of grouping all allowances to any one subscriber so that the District or Local Manager may, if he should desire to know what allowances have been made to a certain subscriber in a given time, be able to ascertain this information in a few minutes, while if all the books used in the time to be covered had to be looked over and notes made of the allowances to any particular subscriber, it might take hours.

Bank Deposit Slips

It was noticed in one large office that the cashier, during the first week of the month, spent considerable time each day preparing by pen a long list of checks for deposit. It was suggested that the adding machine be used, and on inquiring at the bank it was learned that a list prepared in this way would be entirely satisfactory, the only requirement being that the checks should be assorted in the usual way, that is, grouped so that all

the checks on a certain bank would be together, and that the name of the bank should be placed on the tape by pencil and a line run down to the figures on the tape representing the last check in the group on that particular bank.

In another large office this method was called to the attention of the Local Manager, and when it was taken up with the cashier of the bank, he very willingly offered to furnish a special blank of a sufficient length to accommodate an average day's list of checks. The blanks are used in the adding machine, resulting in the saving of time in the preparation of the list and in being able to determine the total after the list has been prepared without any further step being necessary to ascertain the amount of the deposit. The figures for the cash to be deposited are added to the same

Automatic Collections

The collectors in one large office are furnished with coin envelopes for dimes and nickels. they make collections from the coin-boxes they place the coin in envelopes instead of throwing all the nickels in one canvas bag and the dimes in another, as is done in other districts, to be counted again by someone in the district office when the collector brings the money in.

The nickels are placed in envelopes in quantities of two dollars and the dimes in quantities of five dollars, the envelopes are sealed and initialed by the collector, and the name of the Company is stamped on the envelopes with a rubber stamp, The bank accepts these packages of coin for deposit just as they are brought in by the collectors This method saves much time in the preparation of deposits. The envelopes are supplied by this bank.

Correspondence

Some offices were found using two files, one for letters "Received" and one for letters "Sent." In the larger offices handling much correspondence it has been found of advantage to file all the papers concerning a subject in one place for ready access, and it has also been found desirable to have but one file for both letters "Received" and copies of letters "Sent."

It is thus evident that the beneficial results which the Traveling Auditors can accomplish are practically unlimited. The results so far obtained have been due in large part to the hearty cooperation extended by the local office employees, who have realized that the Traveling Auditors are friendly advisers, desirous of helping them to obtain the highest possible efficiency.

Organization Changes

The Bell Telephone Company of Pennsylvania

- H. C. Young has been appointed Local Manager of the Warren, Pa., Sub-District, Pittsburgh Division, vice A. S. Day, resigned.
- E. D. Smith, Plant Chief at Bradford, has been transferred to Erie.

The Atlantic District Plant changes, particularly those in the seashore towns, have this spring, as usual, required the services of a large number of other district men. Those from Camden, Trenton, Norristown, Bridgeton, West Chester, Pottstown and Wilmington, including installers, linemen, foremen and other associated men, have now been returned to their respective districts.

- E. J. Dickinson, Senior Cable Foreman, Philadelphia, has been advanced to District Cable Foreman, succeeding A. H. Bowen, transferred to Pittsburgh as Supervisor of Construction.
- A. Monahan, P.B.X. installer at Bryn Mawr, has been transferred to Wilmington, and P. C. Ragotzky, P.B.X. installer at Bryn Mawr, has been made Installation Foreman at Trenton.
- H. H. Kellar, formerly clerk at Doylestown, has been transferred to the office of the General Superintendent of Plant.

William Helms, messenger in the office of the General Commercial Superintendent, has been made a Clerk in the Contract Manager's office, Philadelphia.

Charles H. Quarles, messenger in the executive offices, has been advanced to Clerk in the office of the Germantown District Manager.

- C. C. Wagner, formerly an installer, has been made Storekeeper at Allentown, Pa.
- H. W. Dean has been appointed Chief Clerk in the office of the General Superintendent of Traffic, Philadelphia.
- J. L. Kenney, Assistant Traffic Engineer, Philadelphia, has been appointed Traffic Engineer, Harrisburg.

- R. F. Wolff has been transferred from Harrisburg to Philadelphia as Assistant to the Traffic Engineer, Philadelphia Division.
- C. R. Burnett, draughtsman in the Plant Department, Eastern Division, has been transferred to the Traffic Engineer's office, Philadelphia.

Miss M. I. Holcombe, stenographer and typist in the Philadelphia Traffic Engineer's office, has been transferred to that of the General Superintendent of Traffic. To succeed her, Miss R. McKenna has been transferred from the office of the Traffic Superintendent, Philadelphia.

W. J. Schandein, Directory Clerk, Publicity Department, has been transferred to the Disbursement Division of the Accounting Department, 1230 Arch Street, Philadelphia, as Estimate

The Central District Telephone Company

- T. Wilkinson has been advanced to Loop Foreman at Lancaster, Pa.
- C. E. Smith, a clerk in the Wheeling District. has been advanced to Storekeeper.
- W. A. McCormick, a special adjuster, has been made Chief Clerk, and N. W. McLaughlin, special adjuster, has been made Supervisor of Salesmen in the Contract Manager's office, Pittsburgh

Miss Lillian B. Hanna and Miss Louise C Ruttkamp, former clerks, have been advanced to Tellers in Pittsburgh.

The men who were formerly titled as repairmen in the Pittsburgh District are now known a combination men in order to conform to titles in other parts of our territory.

These men who were Wire Chiefs are now Plant Wire Chiefs: S. P. Vonderau, Salent Ohio; H. V. Grissinger, Uhrichsville, Ohio: H. S. Smith, Cambridge, Ohio; R. S. Zeise, Marietta Ohio; W. C. Vaughan, Parkersburg, W. Va C. E. McMillin, Sistersville, W. Va.; M. F Johnson, Clarksburg, W. Va.; Bruce Keller Grafton, W. Va.; W. H. Swaney, Steubenville Ohio; and E. G. Hilton, East Liverpool, Ohio.

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THE TELEPHONE NEWS

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania The Central District Telephone Company The Delaware & Atlantic Telegraph & Telephone Co. The Diamond State Telephone Company

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An Echo From Gettysburg

NHERALDED but not lost sight of in the interest and excitement of the great encampment was the splendid effort of the men and women whose duty it was to maintain an efficient line of Bell communication to and from the old battlefield town.

Carefully as had been planned the special facilities for handling Gettysburg's for-all-time greatest telephone traffic, no one could have foreseen the really tremendous difficulties which surrounded the work of the Traffic force during that strenuous week. That an occasional old soldier should wander from his tent, just when the younger folks at home were calling him, was only to be expected. But that whole regiments should "leg it" at the sound of a band or a cheer, that entire battalions should scramble away like so many school-boys over fences and through thickets in the repetition of some historic charge, was even beyond anticipation. And bear in mind that locating your "called party" somewhere in the midst of a battle charge is no small under-

One incident is recited which aptly illustrates the difficulties encountered. The Governor of a Western state was "wanted on the telephone," and wanted badly—simple enough if only the Governor could be found. And so the word went out, and continued to go out; but the Governor was "not there" or had "just left" each point that was called.

Despairing of success through other means, the Traffic man jumped into an automobile and started hunting governors. The road was long and hot and dusty, and led over many false scents; but finally the search was rewarded, and back came the Governor, forty miles an hour, to his urgent call.

That a Traffic man has been thanked, and thanked heartily, by the chief execu-

tive of a far-distant state, is not the point. What is most significant is the idea of service, real service, which prompted every move in the Gettysburg central office.

How often an operator patiently established a long-distance connection for some feeble-voiced veteran at a public telephone on the battlefield, and found, when the connection was complete, that her "calling party" had hurried away to parts unknown, will never be told. At first amusing, but later distracting, this occurrence was repeated over and over again. And among the hundreds of expressions of appreciation which reached the Supervisor, no word of impatience or inattention was reported.

Even at the height of the fun, and "fun" is what they called it, an automobile whirl across the battlefield or down some country road brought every operator back from her rest period with mind and fingers itching for the task. It was a trying tussle,—but it ended the way Bell operators end every tussle, leaving no doubt as to the winner.

The Traffic Department has had its battle of Gettysburg. And, thin as were its ranks, it fought a brave fight and won real honors.

Concentration versus Hurdy-Gurdies

Perhaps the vote stands divided,—but in at least one ground-floor office the answer is almost unanimously No! For as sure as the hands of the clock register nine-thirty there is wafted in from an aggressive hurdy-gurdy at the corner the opening squeal of "Here Comes My Daddy Now."

Immediately things happen. Up goes a window or two; down go pens and pencil. Someone, reveling in his natural tenor, attempts a barber-shop "second"; another hums the baritone part; and the office grouch hunts an alley cat to throw rocks at.

So is concentration put to the test, perhaps too severe a test. But hurdy-gurdies are not the only testers, in this or in any office.

Sometimes it's the argument which is in progress at the ball park,—Who's pitching, and what's the score? Maybe plans for a Saturday afternoon frolic form the one disturbing element. Perhaps it's a long-winded comparison of the fashion columns; yes, and maybe it's some little two-by-four feature of the day's work which is allowed to throw the major machinery out of gear.

Most of us have our hurdy-gurdies, several of them in fact. We could all write a page or two on the value of concentration,—sticking to the job, mentally and physically, till it is done and best done. But how hard is its application! We seem almost to hunt the little interruptions and disconcertions which string out the day's work, sometimes till long after the closing hour.

Make out an eight-thirty-to-five program some fine day, then convince your boss that what you are hankering for most is an afternoon at the ball grounds. Let's assume, just assume, that he says: "Sure, go ahead, if you've got your work up." And what's the result? That work is done by 2.30, probably done easily. And why? You've hustled, of course; maybe tucked a paper or two in the bottom drawer. But, most of all, you've concentrated, have allowed no petty digressions to cheat you out of a minute's time. You wanted that afternoon off. By golly! you proposed to clear the decks before you left; and, when all is said and done, it wasn't half hard.

It's easy to carry the thought through; more concentration, more accomplishment, more confidence, more responsibilities—and we're fast approaching the dollar mark. So everyone to his own resources,—for there is nothing but good-fortune in those thirteen letters, c-o-n-c-e-n-t-r-a-t-i-o-n.

An Operator on Operators' Work

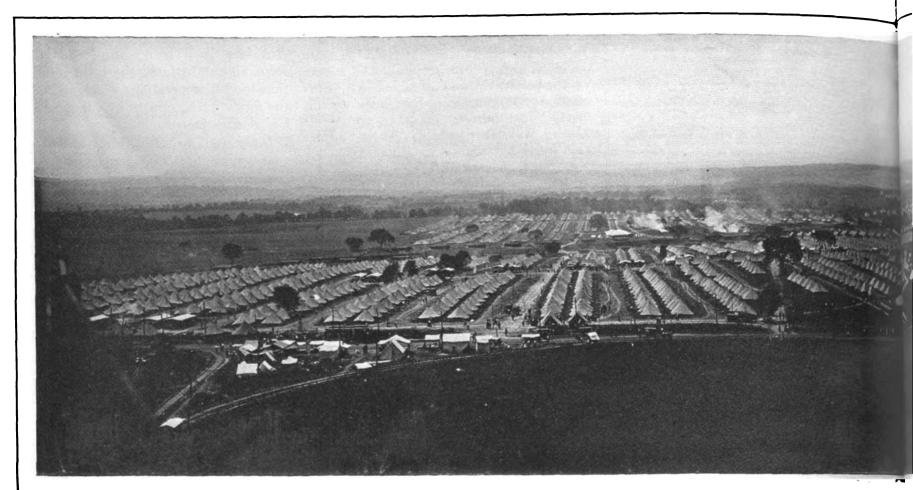
it of self-improvement," writes Miss Ethel M. Trend, an operator in our Chestnut Hill (Philadelphia) office. "It is the desire to know what constitutes true success and the willingness to take the patient steps that lead to it; the desire to correct errors, traits and tendencies which will hold back our progress and keep us from reaching our goal; and the willingness to accept new ideas and to act upon them."

"We must remember that asking intelligent questions is a valuable accomplishment."

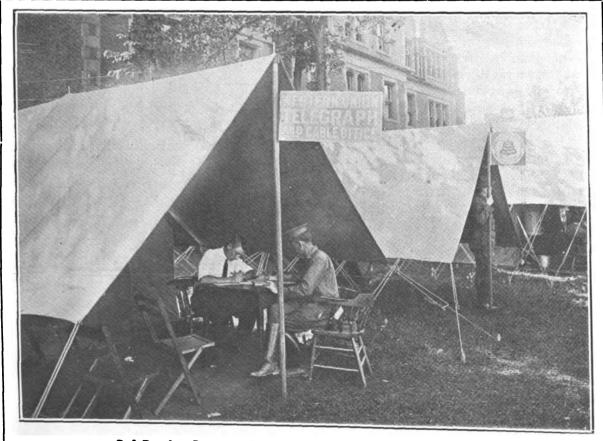
"Always improving somewhere—bettering our best. Progressiveness is looking forward intelligently, looking within critically, and moving on incessantly."

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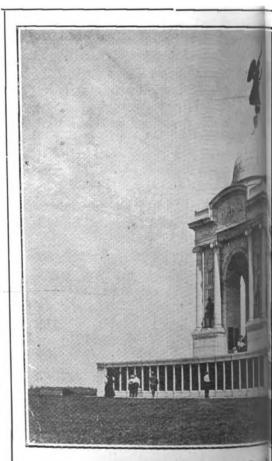




Panoramic View of 5500 Tents at Gettysburg's Celebration-

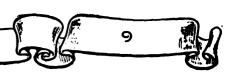


C. J. Beard on Duty at a Western Union Receiving Station, Gettysburg



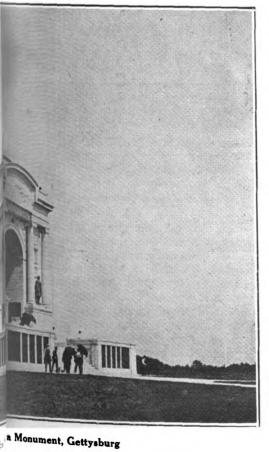
Visitors at the New Penn

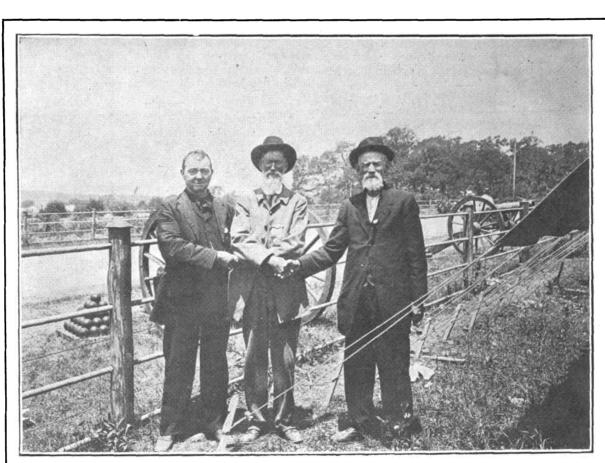






Most Canvas Ever Spread in One Place by Our Government





Two Vermont "Yanks" with "Captured" Georgian in front of Confederate Cannon Captured on Seminary Hill

THE TELEPHONE NEWS



Butler District

The Allegheny Construction Company of New York City, which is building three tunnels for the Pennsylvania Railroad Company between Pittsburgh and Oil City, has made application for, and is being furnished, the grade of service noted below at each of the following points where work of construction is under way: East Brady, individual line and extension; Woodhill and Rochland, four-party main station at each place; Kennerdell, multiparty, 3 stations.

The work of construction will consume about two years, and as it is being handled from the main office at New York, the toll revenue to be derived will be considerable.

On June 24, at seven o'clock, a 50-pair cable was discovered broken and stretched on the pavement of Chestnut Street, Oil City, for six sections. Seventy-five stations were out of service, including some of the most important oil refineries. The Plant Chief, J. F. Mulherin, put his whole force on the repair job and used a good quantity of twist, temporarily splicing the broken ends of the cable, so that by two o'clock in the afternoon all but two of the subscribers were receiving service.

Burglars broke into the residence of H. I. Arnold, an attorney who lives at Braeburn, Pa., and completely demolished the cord on his desk telephone. In some manner the telephone fell to the floor, and the noise apparently frightened the burglars, as they left securing but very little booty.

The West Penn Railway Company recently opened four new offices and substations in the New Kensington District and made application for individual line service at each point. As a result four individual lines were installed. This makes a total of 10 individual lines which this company has in the New Kensington Sub-District.

The national organizer for the Ladies of the Maccabees spent a week in Tarentum organizing a branch. During her stay she used the local and long-distance service very extensively, and before leaving Tarentum she called on the chief operator and thanked her for the excellent service and the many courtesies extended.

The week of June 9 at Oil City was known as Booster Week, and a whirlwind campaign was successfully carried out by the Chamber of Commerce for members in the new organization. Twenty-three hundred members were secured and over \$60,000 pledged for five years. A letter of thanks was received from the committee.

During the last week orders were received at Butler for a Morse circuit to connect Pittsburgh, Uniontown, Youngstown and Butler parties. In advance of specifications and material, the local Plant force made the installation, including the repair of a defective repeat coil and substitution of home apparatus, and placed the circuit in operation with remarkable speed.

A storm that took place in the Dubois Sub-District on June 21 caused somewhat of trouble, especially in the case of our 100-pair cable. This cable serves the east side of Dubois, which contains the principal residence section, as well as several business firms of the town. At eight o'clock in the morning there were 19 lines and 34 stations in difficulty in the cable in question. Repairman Logue prepared a test set, such as he had noticed cablemen using in and around Dubois. This did the work for him, for within half an hour after he started he located the trouble a short distance from the office, it having been caused by dampness. The cable was opened and by evening the lines were in working order.

WARRICK

Johnstown District

On Saturday, June 21, there were twenty-nine cases of trouble cleared on lines working into the Greensburg exchange by William Elliott, a trouble-shooter who uses a motorcycle. This trouble was cleared between the hours of 7:30 A.M. and 1 P.M. Twelve of these cases of trouble averaged three and four miles into the country. Mr. Elliott has been using this machine for about three years and is an expert rider.

The Greensburg Wire Chief's force has just completed rearranging subscribers' lines in the Greensburg switchboard. District and local service was spread to different parts of the board, and this change has assembled each class of service in a way that makes the operating much more simple. This cut consisted of 1250 lines, with no vacant panels and lamps for the cut, which was made with practically no interruptions to service and not one single complaint.

New Castle District

A recent report received at our Sharon office reveals the fact that a near-by borough is alert to the requirements of the law governing pole tax. A regular inspection is made annually and a report of defective poles, cross-arms, etc., is forwarded to the public service company concerned.

The particular report stated that "eight glass insulators were broken," and gave the numbers of the poles.

A toll lineman was sent to replace the damaged insulators, but a careful inspection developed the fact that eight insulators were missing, and that it was due to several phantom transpositions which had been cut in on these poles.

A series of meetings of Traffic employees is being held in this district under the direction of R. P. Baker, New Castle Traffic Chief. Routines and instructions are thoroughly discussed and explained. These conferences have been held at Sharon and New Castle. Following the business sessions enjoyable lunches have been served.

HARPER.

Pittsburgh District

American Sheet & Tin Plate Company General Offices, Frick Building.

Pittsburgh, May 8, 1913.

Mr. W. B. Clarkson, D. M. Central Dist. Telephone Company, Pittsburgh, Pa.

Dear Sir:—May we congratulate you most cordially on the exceptionally good work accomplished by your Mr. Magerry and his able assistants, headed by Mr. Frank Paulin, who so successfully moved our Telephone and Morse Departments that we had practically uninterrupted service during the entire work.

Considering the large amount of work connected with this move, we consider the results obtained through their efforts as being most remarkable.

We also desire to thank you most kindly for

your very much appreciated cooperation and promptness in handling this work.

Very truly yours,
American Sheet & Tin Plate Company,
Telegraph and Telephone Department,
A. W. Naylor, Jr.,
Manager.

A certain Plant Department employee in Pittsburgh, unable to report for work on account of illness, sent the following note to his supervising foreman:

"Will not be up to-day, as I thought I had colic, but have tin-can poison. Don't know what will be the outcome."

Uniontown District

The system of calling by number instead of by name was put into effect in the Morgantown District on June 18. Before the proposed change in calling was made known to the public the Local Manager and Traffic Chief visited the newspaper offices and extended an invitation to the editors to visit the central office. This was accepted, and during their visit the present and proposed calling systems and the benefits of the latter toward the betterment of the service were explained. The efforts of the Local Manager and Wire Chief were fully repaid by a lengthy article which appeared in one of the local papers explaining the situation fully to the public and asking that the Company be given their support in its efforts to improve the service.

A woman in the Morgantown Sub-District called for Information and inquired of her the proper charge for making ratine dresses. She said she had just completed a gown containing six yards of material and had charged \$2.25 for her trouble and wished to be advised whether or not that was a proper charge.

A balloon sent up by a carnival company at Morgantown, W. Va., lodged on an open wire lead, breaking down the wires and causing ten stations to be out of service for a very short time.

A Morgantown subscriber asked that he be allowed a ten-foot cord for his telephone so that it might be placed on the mantel out of reach of the baby.

A recent issue of a daily newspaper contained our advertisement, "A Bell Direct Line Guarantees Face-to-Face Service," with a cut showing

Stuffed Bells

By L. D. Rearick, Salesman, Punxsutawney, Pa.

A clergyman in one of the mining towns near Punxsutawney telephoned to the business office and requested that his contract be changed The salesman endeavored to ascertain by telephone whether the clergyman was at home, but failed to get a response. He, however, found the minister in his study when he visited the house and the business was soon transacted. The salesman was about to leave when he noticed that the clergyman had bound his telephone bells with rags and paper so as to prevent them from making any sound. When our representative asked why this had been done, the minister replied that the ringing of the bell annoyed him, and that he thought the service fully worth all it cost for his own calls, without others bothering him. This would hardly work out if every subscriber followed the same method.

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11

a desk set telephone with the party at the other end of the line pictured in the transmitter. A woman subscriber called the Chief Operator and requested that we change her telephone to the new kind so that she could see the parties she talked to!

A subscriber at West Newton, Pa., who had been very reluctant about taking telephone service was obliged to undergo a surgical operation shortly after the telephone was installed. He was confined in the McKeesport Hospital for a number of weeks, and he states now that the satisfaction, to himself and wife, of having telephone communication during this critical period was worth the entire year's charges for the service.

A boy celebrating the Fourth of July in advance at Donora, Pa., shot off a large cannon cracker which lodged in a cable box on one of our poles, setting fire to some straw in a nest which the birds had built. As a result the cable was burned and forty stations were temporarily deprived of service.

On June 17 there was an explosion at Fairchance, Pa., that blew up two powder mills, causing two fatalities. The shock of the explosion was felt in Uniontown, a distance of six miles. The cause of this shock was quickly learned and in a short time 153 calls to Fairchance from Uniontown were offered, 140 of which were completed. This is three days' business between Uniontown and Fairchance, and the handling of this congestion of calls in a short period of time was only made possible by cutting two Fairmont-Uniontown trunks into the Fairchance central office. There were also a number of other calls from near-by points switched through Uniontown. MISS HEPPLEWHITE.

Wheeling District

The Lebanon Telephone Company, with 200 stations, heretofore connecting with the opposition, has executed a traffic agreement with the Lower Salem Farmers Telephone Company, a connecting company of ours.

A transaction at Steubenville, Ohio, promotes the belief that patience is a virtue. A prospective patron—a little wary as to the benefits to be received, or whether there would be any benefits—spent two hours in our office asking questions concerning telephone service, all of which were answered to his satisfaction, and he signed an application. Half an hour later he was again at the office, this time to say that he had decided to have his application include an extension set.

Two days' directory advertising turned in from our Parkersburg (W. Va.) office totaled about \$600.

This résumé of a happening in one of our subdistricts which effected a friendly relation exemplifies the potency of a "personal touch":

The Cashier's office found it necessary to call a resident regarding the telephone account. Evidently the wife complained to her husband that she was being annoyed for payment of the bill, for a call from him to our office was couched in right warm terms.

Having occasion to talk with this subscriber concerning directory advertising, our Manager called at his office and obtained an application. Then our collection routine was explained in a quiet way and the next day the girl clerks received a mute apology—a two-gallon freezer of ice cream.

MISS DIEHL.

Greensburg Traffic Force Picnic

On June 19 the first picnic of our Traffic employees at Greensburg took place at Oakford Park, a beautiful natural breathing-spot five miles from Greensburg.

An elaborate supper was served at 7 P.M. and ninety people sat down to laden tables. The table-cloths and napkins were decorated with Blue Bell stickers, and pinned to each napkin was a little Blue Bell pin. Cold meats, sandwiches, olives, pickles, salads, cakes and "Bryan" punch were served, to the enjoyment of all.

The pièce de résistance was a huge cake weighing fifteen pounds, made in the shape of a bell. The cake was covered with blue icing and the letters "Local and Long Distance Telephone" were of white icing; altogether a most attractively gotten up surprise. In the cake was a small celluloid Blue Bell, and the possessor of this bell was to be the recipient of a three-pound box of candy; Miss Bessie Wright, Local Supervisor, Greensburg, was the lucky one. The cake was donated by Miss Mattie Neilson, Toll Supervisor, Greensburg, and designed by Ed. M. Horne of the Plant Department. The invitations were novel in form and so designed that two folds and a Blue Bell seal made them mailable.

The lunch was provided by the Greensburg operating force and the picnic was engineered and brought to a pleasant actuality by Miss M. R. Logan, Greensburg Chief Operator.

Miss Mary Ramsden, Blairsville Chief Operator, Miss Lulu Smith, Latrobe Chief Operator, and Miss Irene Johnson, Ligonier Chief Operator, were guests of Miss Logan.



Reading District

An employee of the Shamokin Commercial office attended church where the annual baccalaureate services were being held. During the course of the evening it was noticed that the members of the choir all used Blue Bell fans. This kind of distribution, as is known, has been our practice in all parts of the territory. The attendance at the services being very large, the fans furnished an excellent advertisement for our Company, as the large blue bell on the front could be seen from all parts of the church.

During the week of June 9, at which time the Firemen's Convention was held at Mount Carmel, the operators received a number of comments on the promptness with which all telephone calls were answered.

Repeated efforts on the part of a Lebanon salesman finally resulted in obtaining an application from one of the oldest subscribers to an opposition company.

Before the salesman left the subscriber's place of business he was given the name of another opposition user, who, when told that his friend had signed for our service, also agreed to place a Bell telephone in his store and gave his application for immediate installation. HYKES.

Scranton District

The employees of the Commercial Department at Scranton enjoyed an outing to Moosic Lake on Saturday afternoon, June 21. Boating, swim-

ming, dancing and a game of baseball helped to make the occasion a pleasant one.

SMITHING.

Williamsport District

The Spruce Hollow Telephone Company, H. F. Geise agent, re-signed contracts to cover service for an additional period of three years. This service line company has at present thirteen stations served from the Northumberland theoretical exchange.

Work on multiparty line between the towns of Mansfield and Tioga will be commenced at once. This will open an undeveloped territory tributary both to Wellsboro and Mansfield. Under the new conditions subscribers will have free service to those places.

The Blooming Grove Bell Telephone Company has just completed an additional circuit between Williamsport and Warrensville, and is now operating 22 telephones in the vicinity of Warrensville.

The Brookside & White Pine Telephone Company, which is operating under a connecting company agreement, has just completed an extension of the line from Waterville to Okome, a distance of eight miles, adding 14 new stations. This opens a new territory along Pine Creek.

A splendid news article, written by one of the leading ministers of Sunbury, appeared in both of the Sunbury evening papers under date of June 24 complimenting our Company and calling the attention of the public to the wonderful convenience and value of Bell telephone service. The article was written because of the efficient and intelligent manner in which our Long Distance operator, with but little or no information, located the manager of a certain evangelistic party who had left Pennsylvania for Troy, N. Y. The call was placed by Sunbury ministers in conference, all of whom were very dubious as to our operator being able to locate their party. To their great surprise and satisfaction the party was located and ready to talk in less than ten minutes after the call had been placed. As a mark of appreciation the article above mentioned was written and inserted in both daily papers, after which two of the ministers called at our business office in person to compliment the Company and the operator who handled the call.

Two barefooted urchins, both about six years of age, stopped F. A. Neff, the Sunbury Local Manager, on the street a few days ago and handed him a note which was not addressed to anyone in particular, nor was it signed. It read, 'Telephone my husband at Deppen's coal office to come home on first train as his wife is seriously The Local Manager knew of but one coal merchant in or about the Sunbury District by the name of Deppen. This merchant was in the coal business at Herndon, ten miles south of Sunbury. After questioning the boys as to their father's name, a message was sent through the Mandata central office to Deppen's coal office at Herndon, where the desired person was located. The message was delivered and the man returned on the first train to Sunbury. The result of the tele-phone message was written on the back of the note so that the wife might know that her request had been complied with.

This incident is only one of the many ways in which the telephone is successfully serving the public.

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Vibrations

Man is not the creature of circumstances. Circumstances are the creatures of men.—Disraeli.

Mr. Theodore N. Vail will celebrate his sixtyeighth birthday this month, having been born July 22, 1845.

Adversity is sometimes hard upon a man; but for one man who can stand prosperity there are a hundred that will stand adversity.—Carlyle.

Over 2000 stations are planned to be served from a switchboard enclosed in glass at the Panama-Pacific Exposition at San Francisco in 1915. Guides will explain the switchboard workings to visitors.

To-morrow cheats us all. Why dost thou stay

And leave undone what should be done to-day?

—Hughes.

It is always inspirational to learn of progress made by telephone companies that are allied in any way to our interests. At Amherst, Nova Scotia, the Maritime Telegraph and Telephone Company has cut into service a new 9-section, No. 10 common battery switchboard equipped for 900 lines and now serving about 1200 stations. Employees there are particularly proud of the handsome new building in which the equipment is located.

What are fears but voices airy?
Whispering harm where harm is not
And deluding the unwary
Till the fatal bolt is shot!

-Wordsworth.

"The New General Manager" is the interesting title of a petite comedie presented by members of the Boston Commercial chapter of the Telephone and Telegraph Society. About 220 members and guests were entertained. Before the close of the evening, Mr. William R. Driver, Jr., the new General Manager of the New England Company, was introduced and spoke briefly.

A man makes no noise over a good deed, but passes on to another as a vine to bear grapes again in season.

—Marcus Aurelius.

In the meteorological observatory at the top of Mount Rosa of the Apennine Alps there is a telephone central office credited with being the highest in the world—three miles (actually 15,450 feet) above sea level. The very short poles in use are removed every fall and are replaced in the spring, thus "eliminating" winter storm troubles!

O wad some pow'r the giftie gie us To see oursels as ithers see us! It wad frae mony a blunder free us, And foolish notion.

-Burns.

Baseball 200 feet above the sea level is played by Chicago Telephone employees on the top of that Company's new building. At noon and at other off-duty times the two teams are at it, and the six-foot wall together with the size of the available roof space have kept the ball on this sky-parlor diamond.

The art of using moderate abilities to advantage wins praise and often acquires more reputation than real brilliancy.—La Rochefoucauld.

On Mothers' Day in May an Oklahoma City man decided that he wanted to hear his mother's voice. As she was in Biddeford, Maine, he used the Bell and talked 1800 miles through Muskogee, St. Louis, Pittsburgh and Boston. The three-minute rate of \$10.50 was nothing compared with the satisfaction of the talkers.

A man has no more right to say an uncivil thing, than to act one; no more right to say a rude thing to another, than to knock him down.—Johnson.

The thirty-second annual reunion of the Old-Time Telegraphers' and Historical Association will be held in Detroit, Mich., August 26, 27 and 28. An elaborate program has been announced.

But human bodies are such fools,
For all their colleges and schools,
That when no ills perplex them
They make enough themselves to vex them.
—Burns.

Experiments of interest are being made at intervals in all sections of the country regarding the supporting strength of cross-arms. In Washington State a Douglas Fir ten-foot cross-arm was rigged up, supported at one end by being lashed to a heavy beam. From the other or free end a truck weighing 417 pounds was suppended by ropes extending from the pin-holes. The pole was braced as is customary when on the pole. Then sixteen Biltmore schoolboys, who were viewing the test, climbed on the truck. Their total weight was 2387 pounds. Thus 2804 pounds were supported without a crack of the cross-arm.

What we must have is MEN [I am sure we have them] The task before us demands:

Good minds, strong faith,
True hearts, willing hands.
Men who are honest and will not shirk,
Men of conviction, men who will work

Till the goal is won.

Men with ambition, and resolve to win,

Men with a will, with vigor and vim,

To last till the job is done.
Tall men—sun-crowned—
With heads above the fog of doubt,
Men who will keep things moving

Till the last prospect's smoked out.

—Adapted from Dr. Holland.

The Turkish telephone system in Constantinople now boasts of 3000 signed applications for service!

In science, as in common life, we frequently see that a novelty in system or in practice cannot be duly appreciated till time has sobcred the enthusiasm of its advocates.—Maud.

During the convention of the Associated Advertising Clubs of America a graceful and attractive float forcibly called visitors' attention to the 53,000 Bell telephones now in Baltimore.

Pleasure comes through toil and not by self-indulgence and indolence. When one gets to love work, his life is a happy one.—Ruskin.

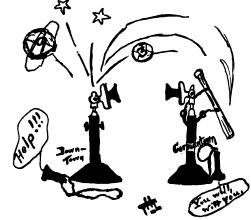
Routine inspection of telephone substation equipment is treated in a lengthy article appearing in the June 5 issue of *Telephony*.

Germantown District Outing

By F. R. King, District Correspondent, Germantown

The outing of the Germantown-Philadelphia Districts, held on June 14 at Mineral Springs, was a big success. Mineral Springs Grounds adjoin Willow Grove Park and proved to be an ideal place for a real picnic. Although the attendance was somewhat smaller than had been expected, a decidedly lively crowd counteracted any disappointing effect that this might have had. In fact everyone had a "rattling" good time during the entire afternoon and evening.

Perhaps the most important event of the day was the clash between the Commercial Departments of the Philadelphia and Germantown Districts on the diamond. It was a snappy game regardless of the fact that Germantown won out by the decisive score of 9 to 3. This was due in a large measure to the superior pitching of Benedict. Harry Hoff was everything that could be asked for as an umpire and "Bob" McLean was the efficient manager of the victors.



The feud did not end here, however, for two weeks later the teams met at Jenkintown for another game. A shower during the first inning made fast fielding impossible and the slippery ball caused many wild throws; nevertheless it proved to be a better game than the first contest. Germantown squeezed ahead in the fourth inning and was never overtaken. Although their opponents had a good opportunity to even things up in the eighth, the necessary hit was lacking. Excellent pitching, double plays by both teams and some clever catches in the outfield were the features of the game. The score resulted as follows:

| lows: | | |
|--------------|----|----|
| Germantown | R. | H. |
| Tissott, 3b | 1 | 1 |
| Barry, If | 0 | 2 |
| Buchanan, 1b | 1 | 0 |
| Clark, ss | 0 | 0 |
| Walters, cf | 0 | 0 |
| Brooks, rf | 0 | 0 |
| Banks, 2b | 1 | 1 |
| Booth, c | 1 | 1 |
| Benedict, p | 2 | 3 |
| | | |
| Total | 6 | 8 |
| | | |
| Philadelphia | R. | н. |
| Huhn, 3b | 2 | 2 |
| Peoples, c | 0 | 1 |
| Bradbury, 1b | 0 | 1 |
| Murray, p | 0 | 0 |
| Meany, ss | 0 | 0 |
| Bradford, 2b | 0 | 3 |
| Burt, cf | 0 | 0 |
| Clark, lf | 1 | 1 |
| Wapple, rf | 0 | 0 |
| - • · | | |
| Total | 3 | 8 |

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Atlantic District

The American Railway Master Mechanics and Master Car Builders' Association held its annual convention on the Million Dollar Pier from June 10 to 17. They signed an application for P.B.X. service with 126 stations. All wiring was done and stations were put in working order in five days after the application was signed. A telephone was placed between each two exhibit booths, furnishing unlimited local service for exhibitors. They were equipped also with automatic coinboxes for long-distance calls. The 280 exhibitors drew a crowd of 5000 interested visitors.

HALL.

Camden District

A physician in Beverly advised the District office that he was moving his house from Broad and Pine Streets to Cooper and Putnam Streets, a distance of about three squares, and did not wish to be without his telephone service.

The members of the family are living in the house all the time, during its progress down the street inch by inch. The doctor's patients are

attended to without interruption.

At the time of the telephone call the subscriber was talking from his own station and the house was moving slowly up the street. We were advised that they had gone about as far as our wires would reach. Arrangements have been made whereby the doctor has continuous telephone service.

New Jersey Underground Work

There are a number of very important plant extensions being made in the Plant Eastern Division. The 1913 approved estimates cover changes and additions costing approximately a million dollars.

Between the toll office at Seventeenth and Filbert Streets, Philadelphia, and Haddonfield, N. J., a conduit has just been laid that will form the first portion of the Camden-Atlantic City under-

ground cable line.

It is understood, of course, that the Philadelphia section has long been underground as well as that on Federal Street and Haddon Avenue, about two and a half miles long, as far as the Camden city line. From the latter point to the southern end of Haddonfield, a distance of five or six miles, a 6-way terra-cotta duct has been laid. In it a 100-pair cable, made up of fifty 16-gauge and fifty 13-gauge wires, is to be run to replace entirely the present No. 1 Atlantic City pole line lead carrying a 30-pair aerial cable and five cross-arms with open wires.

In this same underground lead subscribers' cables are being run for the entire distance, thus eliminating the aerial line along Haddon Avenue,

an attractive residential street.

In front of the new joint telephone-telegraph offices at 521 Federal Street has been placed a handsome electric sign about nine square feet in dimension, containing 452 lamps. This sign can be seen for many squares and is without doubt the most attractive electric sign in the city of Camden. A night view of the sign is here reproduced.

Dover Sub-District

During a lecture on "The Wonders of Science," which was included as a part of the program of

a Chautauqua recently held in Dover, the speaker demonstrated various inventions, including finally television, or, as he explained, seeing by wire. In explaining the progress in certain branches of science and their application to every-day use, the lecturer gravely announced that in his opinion, based on past achievement, it would be no distant day when a patient will call his physician on the telephone [or vice versa] and will show his tongue and apply his wrist to the transmitter. The physician will then be able to prescribe most effectively, and, best of all, the fee will be "charged on his telephone bill or the amount dropped in a coin-box attachment." Just when the Telephone Company would be ready to put this extra convenience in operation could not be announced by the Local Manager, who happened to be in the audience, and who was asked if it might be expected soon. PRINCE.

Norristown District

The installation of a No. 1 P.B.X. switchboard has just been completed for B. E. Block & Bros., one of Norristown's largest stores. J. G. Rorer, a Norristown salesman, obtained the application.

An application has just been obtained by A. B. Scheffey with the Hill School, Pottstown, one of the leading preparatory schools in this country, for a No. 1 P.B.X. switchboard with 4 trunks and 20 stations.

A. B. Scheffey, our Pottstown salesman, recently took five clergymen of the Reformed Church through our Pottstown central office. The clergymen were so impressed with the intricacies of the switchboard and terminal room that they spent the remainder of the afternoon in the study of one of the members of the party in discussing the wonders of the Bell System.

BEERER.

GARWOOD.

Trenton District

A whirlwind money-raising campaign was started in the Trenton District by an educational institution to raise \$100,000. At noon of the last day set for the purpose the committee was \$12,000 short. However, by the liberal use of long-distance telephone service, the \$12,000 was secured before the close of the day.

The graduating class at the Mt. Holly High School visited our central office in their town.

Twenty-three members of the graduating class of the Burlington High School and the supervising principal also made an inspection of the Burlington central office.

Mr. Oscar Ewan, Mt. Holly-Burlington salesman, conducted both parties through, giving them a general idea of the magnitude of the Company, and the chief operators explained the operating.

West Chester District

Last month while our men were working in the vicinity of Lionville, Pa., a resident of that place cut himself severely with an axe. The only doctor in the town being out on a case, our men stopped the bleeding and loaded him into the truck and took him to the nearest doctor, at Downingtown.

A subscriber near Eagle, Pa., notified our operator that his gasoline tank was on fire and for her to summon immediate aid. She notified our gang that happened to be working in town.

Mr. Murdough took two of the gang, jumped into the truck, and five minutes later arrived at the farmhouse with extinguisher ready for business, but the fire was then under control. Mr. Murdough was thanked very profusely for his kindness and prompt attention. This has strengthened the friendly feeling between the subscriber and Company.

Wilmington District

While a spectator at a Saturday afternoon baseball game, H. J. Bradley of the Plant Department rendered first aid to the injured to one of the team who was badly stunned by colliding with one of the other members.

L. C. Finnan, Combination Man, in going in on a line, was surprised to hear a woman ask who he was. On being informed her line was in trouble, she stated her desire to call a physician who lived in Wılmington, six miles away. Mr. Finnan got the testing table operator to relay the message and within half an hour the physician passed the combination man on the road.

J. I. Hoffecker, Wire Chief, heard that a railroad man was going to move from Clayton, Del., to Wilmington, and wanted telephone service. He notified the Commercial office and an application blank was mailed to Clayton and installation O.K.ed the day the subscriber entered his new home. He said he knew his railroad moved on time, but it "had nothing on" the Bell.

Messrs. E. P. Bardo, J. H. Mehaffey, D. C. Hosfeld and J. A. Dockety were members of a party of 110 men who as representatives of the Chamber of Commerce visited Pennsgrove, Salem, Bridgeton and other south Jersey towns on a boosting trip for Wilmington. The party, in thirty-two automobiles, were ferried from Wilmington to Pennsgrove and then toured New Jersey. Our Company had two cars in line, and greater commercial activity is anticipated.

Accidents and Their Causes

The following report of an accident shows the dangers arising from the misuse of tools. A cable splicer's helper was pumping air into a kerosene furnace which had been filled with gasoline. From some cause the gasoline leaked out of the top of the pump and became ignited from the flame of the furnace. The fiery liquid struck the man in the face and burned both sides of his face, his forehead, and the back of both hands. The accident was due to the use of gasoline in a kerosene furnace in place of kerosene, and could have been avoided if the furnace had been used in the manner for which it had been designed.

A loop wagon was being loaded in front of one of the storerooms. The man was placing his instruments and tools on the wagon between the tool box and the seat. In doing so he stood on the ground between the two wheels of the wagon, and when the horse started the rear wheel ran over the man's foot before he could get out of the way. Three of the man's toes were crushed. The accident report states, "No one was to blame but the horse."

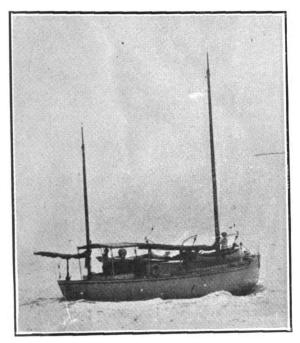
This accident could have been avoided by hitching the horse either to a post or by means of an ordinary weight commonly used for this purpose.



Rinkedoodle Club at Fortescue

By W. Bradford, District Correspondent

All those members of the Rinkedoodle Club who possess bright-red sporting blood embarked on Saturday, June 21, for the quaint little town of Fortescue, N. J., settled many years ago by the Democrats. As the guide-book would say, Fortescue is washed by the deep blue waters of mighty Delaware Bay. After utilizing every possible means of travel, beginning with a ferryboat and concluding with the feet of the members,



"Ocean Liner" Chartered by Rinkedoodlers

some two dozen weather-beaten adventurers arrived at their destination. Six or eight members who were favored by the goddess of good fortune were enabled to get away in the morning and enjoyed a trip down the Cohansey River from Bridgeton to the bay, and thence to Fortescue, aboard the boat which had been chartered for the occasion. Since the time of the settling, the place has not enjoyed a very rapid development; nevertheless the club cannot complain of not getting a warm reception, and one that kept all on the jump for a while.

Due to a misunderstanding somewhere in the inner workings of the club's machinery, the provisions failed to reach Bridgeton in time to be taken on the boat, but with the assistance of Mr. Eno, the District Manager, an automobile was pressed into service and the "much worried over" provisions arrived, no worse for the delay. The Williams House was used as the club's headquarters.

The fishing trip proper was scheduled to start at 4:30 Sunday morning, and after a half dozen unsuccessful attempts beginning at 1:30 the fishing party finally got under way. The weather was ideal for the game, and the sturdy little boat from Bridgeton was anchored in the vicinity of the New Ledge Light, about seven miles off shore. Immediately a lively contest ensued to discern which of the party possessed the skill to land the largest number of fish. This honor was carried home by Mr. Sam Myers of Bridgeton, who made twelve catches out of fifteen attempts. At one time the sport became so spirited that a most enthusiastic member of the party succeeded in lassoing his fish, a feat for which he merited the enviable title of "the Cowboy Fisherman."

Some of those who preferred other fun re-

hiladelphia Division-

Chester District

On June 28 the Chester Division team "walloped" the Disbursement Division of the Account the Disbursement Division of the Accounting Department in a loosely contested game on the grounds of the Pennsylvania Military Academy. The game was called in the seventh inning on account of rain, with the score 16-1.

The teams were made up as follows:

| CHESTER | | DISBURSEMENT |
|-----------|------|--------------|
| Gallagher | c. | Landis |
| Borden | s.s. | Larthon |
| Baldwin | 1b. | Fairbanks |
| Turnbull | 2b. | Lannon |
| Doyle | 3b. | Fowler |
| Bonnes | r.f. | Powers |
| Tonge | 1.f. | Henry |
| Barnes | c.f. | Haupte |
| Byron | p. | Fryckberg |

Germantown District

The Germantown exchange is one of the largest residence exchanges in the Philadelphia Division. There are 58 positions on the switchboard and a

mained on land, and after a ball game which afforded a little excitement, enjoyed a swim in the

The trip home capped the climax. Leaving at twelve o'clock noon, the boat reached Bridgeton in time for the club to board the last train heading Camdenward. Refreshments were served continuously on the boat, and an elaborate entertainment, which of course had been prearranged, was furnished by the Rinkedoodle Quartet.

The only marring feature of the entire trip was the fact that one of our party, an ex-salesman, was inclined to be gloomy on the way home, due to the fact that he had been unable to induce the keeper of the New Ledge Light to have a telephone installed. In a recent interview with that member he said that in the near future he proposes returning to Fortescue, to bring back to Philadelphia affixed to an application the name of that lighthouse keeper.

total operating force of 87 young women. The height of business occurs between 9 A.M. and 11 A.M., when about 48 operators are required to handle the traffic. During the afternoon the traffic is lighter, requiring but 31 operators. During the evening hours there is enough business to keep 35 young women at work. After 10 P.M. (known as night work) there are only about 6 operators until 7 A.M.

Effective July 1, the northeastern Philadelphia districts of Somerton, Bustleton, Torresdale, Holmesburg, Tacony, Fox Chase and Frankford -formerly handled commercially by the 1230 Arch Street Business Office-became part of the Germantown, Philadelphia, Commercial dis-

1230 Arch, Business Division

To hold a prospective subscriber the Commercial Department called in a rush job to the office of the Supervisor of Equipment, Philadelphia, at 10:30 A.M. At 12:15 the same day the Central District Foreman had installed the instrument at Fourth and Market Streets and had obtained an O.K.

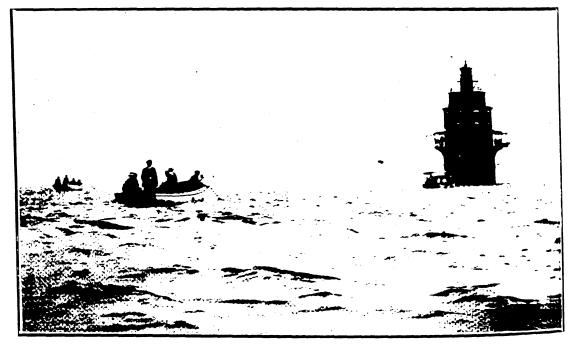
A boy of fourteen years recently called at the business office to sign an application blank for employment as a messenger. In answering the prescribed questions he furnished some startling information, as follows:—
"Are you married?" "No."

"Is your { wife husband } living?" "Yes, both are."

"Have you any children?" "Have two besides myself.

In record of previous employment he gave the information that he had been a messenger on wheels.

A woman recently called at the business office to sign for new service, and having arranged matters satisfactorily, turned to go. When about halfway to the door she wheeled round, and in a tone which could be heard throughout the entire floor shouted: "Don't have that man with the 'phone call during the next few hours, for I have some marketing to do, and no one will be in the house till I get back.' BRADFORD.



Vicinity of the New Ledge Light-Scene of Rinkedoodle Fishing Trip



15

1230 Arch, Sales Division

A salesman when calling on a subscriber was asked, "Is the company now hiring girls for oper-

asked, "Is the company now miring girls for operators from the other side of the Atlantic?"

Salesman: "No, not that I ever heard. What makes you ask that question?"

Suscriber: "Well, judging by the 'burl' they have got when they repeat your number, one might almost believe they came from Scotland." "In what way do you mean? Šalesman :

Subscriber: "When I have occasion to call up my husband (whose number is Walnut 163), your operator repeats something like this: 'Walnut, one six thr-r-r-e-e." J. E. CHAMBERS.

1230 Arch, Cashiers' Division

One subscriber whose check for a fairly large amount had been returned with a note to the effect that it was more than his indebtedness, most gratefully acknowledged the return of it.

OWENS.



Albert Marshall 15th and Chestnut Streets. Philadelphia. in the Newly Adopted Uniform of the Western Union Telegraph Co.

New Western Union Uniforms

The Western Union Telegraph Company has adopted a new uniform for its messengers. It is to be made of fifteen-ounce flannel of the standard blue color and will be trimmed with a dark blue mohair soutache of the shade and quality used in the U. S. Army and Navy. The coat will have a military collar with the letters "W. U." on each side. The initials will also appear ringed in blue on the sleeves halfway between the elbow and the shoulder seam. The coat will have no shoulder straps. The collar and sleeve initials and the ring encircling them will be of the same shade of blue as the soutache. The former uniforms were made with turned-over collars, which have now been replaced by military collars.

The new uniforms will be placed in service as rapidly as the present ones become discarded

through season changes or wear.

The Spare Pair Outing

F red-letter days were not so common, we would say that the Annual Philadelphia Outing of the Spare Pair Society was the red-letter day in the history of athletic events as far as telephone companies are concerned. For it is doubtful if any company outing in this territory was ever so well arranged and so successful as that held on Saturday, June 21. This, ladies and gentlemen, was due directly to the committees and individuals under the following men: F. A. Figner, W. A. Eipper, J. H. Carroll, W. B. Eldridge, J. G. Emmons, H. R. Clegg and J. H. Babin.

Long before the scheduled time for opening, the crowd began to drift into the big grandstand of the Pennsylvania Railroad Y. M. C. A. In fact, little groups of the jolliest kind of people seemed to be continually arriving at Forty-fourth and Parkside from all directions. It is small wonder, therefore, that by two o'clock there were fully twelve hundred telephone folks on hand to help along this year's outing. If you think this a big crowd, let it be known that it was conservatively estimated that the storm on Friday night caused work which required the services of a full thousand more. This, besides preventing an overflow meeting, unfortunately kept quite a number of the contestants from taking part. However, if you were not there, you can be sure you were represented-if that is any satisfaction; for not only were members of every department conspicuous, but other companies were also prominently represented. For instance, there were present many of the Western Union and not a few Western Electric and A. T. & T. men.

After some delay, during which the suspense was not "awful," the 100-yard dash was announced and the excitement was uncorked. this initial event the novice entries showed that they were not so slow as those who so designated them. At the finish Riley was found to be leading, closely followed by Idell and Swayne. The 100-yard handicap was an even more closely contested dash, however, and was an exciting struggle throughout the last fifty feet. When the tape snapped there were barely six inches between Stanley Smith, who finished first, and Miller, with Idell a few feet behind. It was a great race and the closest handicap event of the afternoon.

The 220-yard hurdle aroused a good deal of interest among the spectators, although little surprise was expressed when Mathers, former captain of the Penn State Track Team, refused to associate with the rest of the entries and won in 27 seconds. McGrath finished second.

There was a continuous performance in the person of Thomas James, who came down from Royersford. It has been remarked by a critic that a comedian is sometimes introduced into a play to keep the audience from laughing at the actors. We do not know whether "Farmer" James came down on a mission of charity or not, but we do know that he did much to liven up the afternoon with his stunts.

Then there was that all-important feature necessary to such a 14-carat outing: yes, we mean the band. If the Willow Grove management or anyone else is in need of good peppery music we advise them to secure Messrs. G. W. Roberts, W. Showalter, J. N. Ellis, T. G. Rowand, H. L. Hendler, F. D. Cox, J. L. Greene, F. G. Brewster, J. A. Joyner, L. M. Neibler, W. M. Thomas and G. Bolton. Unlike many inferior bands, they were not stingy with their services but "tore a rag" every few minutes; and you can bet that this went a long way toward making the occasion the big, lively success that it was.

The jumps—like the dictionary, we are changing the subject rather often-stirred up a lot of interest in the grandstand and are worthy of following on behind the band in mention. In every case it required a long process of elimination to determine the fittest and the unfittest. In the running broad jump, McGrath finally, with a leap of 21 feet 11/4 inches, beat both S. Smith and Mathers; while in the standing broad jump Hartley showed his skill by winning from a large number of human fleas. McGrath had another chance to show his "class" in the high jump, and those who saw him kick himself high over the bar without losing his smile have no doubt that he is a real athlete. In two of the jumps Zelly, last years' winner, was second, being but a quarter inch and an inch behind respectively-mighty close!

Of course, like in all other real sporting affairs, ere had to be a "dark horse." This part was there had to be a "dark horse." played to perfection by Miller, who had little trouble in winning both the 220-yard dash and the quarter-mile run. His time in the 220 was 25 seconds,—not bad considering the track. P. Smith also deserves special mention in this event as the best "also ran."

Roop, who had been "coming strong" all afternoon, noticeably in the quarter mile where he finished second, won the discus by throwing this five-pound plate almost 87 feet. Lots of other entries were surprised to find that they were stronger than they knew. The more conservative Spare Pairs at the same time were hurling quoits. This safe and sane match proved to be a test of skill and diplomacy and was awarded to Paul and Swisher, a combination which has been

unbeatable for the last two years.

But for a compound of agility and perseverance the humble potato race surpassed all the rest of the program. If the spectators were to judge by the way the numerous entries handled their spoons, mighty few of them seemed to possess any knowledge of table etiquette. Perhaps the spectators also showed a lack of manners in failing to suppress the loud laughter that greeted every vain effort to coerce the Irish fruit. However, potato racing is harder than it looks. If you don't believe this, let it be known that it took one of the best wrestlers in the United States finally to overcome the elusive potato.

Then came an event that required the entire official force, consisting of Judges Carroll and Dimond, Starter Eldridge, Timers Chapman and Daly, and Clerks of Course Spofford, Switze and Kinney. This was the affair that had caused all the turmoil around the office desks-the relay race that had caused so much interest for weeks and was over in one minute and forty-three seconds. In this short time the stanch supporters of the favorite No. 4 team disappeared like smoke as Mathers, Babin, Reutlinger and Miller romped around the track with winning strides and were followed by Riley, Buchanan and Lyshon; Lyshon pluckily running two laps when circumstances prevented the fourth man being present.

Then the messenger boys did their best to show that there was no truth in all these "messenger boy" jokes. After seeing the way they went after the prizes awarded by the baseball committee, we agree with them that those jokes "auter be canned." The winners of the junior events finished as follows: Neil Brown, Joseph Kelsall and Walter Hine, while Charles Quarrles, Wm. Lenox and Frank Thompson captured first, second and third prizes among the larger boys.

The decks were now cleared for action—or, rather, more action; and the next moment the umpires, in full regulation uniforms, stepped forth, giving the field a decidedly professional appearance. Let it be said right now that the decisions rendered by Messrs. Wiley and Hons were of the same "big league" quality as their

The game gave promise of being a most highly interesting and exciting contest, until a leak was sprung at the beginning of the third inning. As it was there was every indication that the spectators were going to be treated to a pitchers' battle, as both Cuppett and Larsen were working well and each had four strike-outs to his credit in two innings.

Just before the score sheet got wet it looked something like this:



THE TELEPHONE NEWS







| Whites | R. | H. | 0. | A. | E. |
|---|---------------------------------|---------------------------------------|----------------------------|---------------------------------|--|
| Borgin, ss | 1 | 0 | 0 | 0 | 0 |
| Brady, 3b | 0 | 0 | 0 | 0 | 0 |
| Reichort, 1b | 1 | 1 | 4 | 1 | 0 |
| Larsen, p | 0 | 1 | 0 | 1 | 0 |
| Stanton, c | 0 | 0 | 1 | 3 | € |
| Colins, 2b | 0 | 0 | 1 | 0 | (|
| Poulson, rf | 0 | 0 | 0 | 0 | (|
| Aldred, cf | 0 | 0 | 0 | 0 | (|
| Louderbeck, lf | 0 | 0 | 0 | 0 | (|
| | | _ | | | <u> </u> |
| Total | 2 | 2 | 6 | 5 | (|
| | | | | | |
| | R. | II. | о. | Α. | E |
| Blues | R. 0 | 11. 0 | o. 3 | А. 0 | E |
| Blues Wertz, c | | | | | E 1 |
| BLUES Wertz, c Murphy, c | 0 | 0 | 3 | 0 | E ((|
| BLUES Wertz, c Murphy, c Mathers, ss | 0 | $\begin{array}{c} 0 \\ 0 \end{array}$ | 3 3 | 0 1 | E ((|
| BLUES Wertz, c Murphy, c Mathers, ss Miller, 1b | 0 0 0 | 0 0 1 | 3 3 0 | 0 1 0 | E (((|
| BLUES Wertz, c Murphy, c Mathers, ss Miller, 1b Kinney, 2b | 0 0 0 0 | 0 0 1 0 | 3 3 0 2 | 0 1 0 0 | E () () () () () () () () () () () () () |
| BLUES Wertz, c Murphy, c Mathers, ss Miller, 1b Kinney, 2b Owens, 3b | 0 0 0 0 | 0 0 1 0 0 | 3 0 2 0 | 0 1 0 0 | E (((((((((((((((((((|
| BLUES Wertz, c Murphy, c Mathers, ss Miller, 1b Kinney, 2b Owens, 3b O'Keefe, rf | 0 0 0 0 0 | 0 0 1 0 0 | 3 0 2 0 | 0 1 0 0 0 | E () () () () () () () () () () () () () |
| BLUES Wertz, c Murphy, c Mathers, ss Miller, 1b Kinney, 2b Owens, 3b O'Keefe, rf Lehmon, lf | 0 0 0 0 0 0 | 0 0 1 0 0 0 | 3 0 2 0 0 | 0 1 0 0 0 0 | E () () () () () () () () () () () () () |
| BLUES Wertz, c Murphy, c Mathers, ss Miller, 1b Kinney, 2b Owens, 3b O'Keefe, rf | 0 0 0 0 0 0 0 | 0 0 1 0 0 0 0 | 3 0 2 0 0 0 | 0 1 0 0 0 0 0 | E () () () () () () () () () () () () () |

Total

Since such keen rivalry was felt over the game, arrangements will probably be made to play another contest some waterproof Saturday during the summer.

There wasn't any shower going, though, that could put a damper on the seven o'clock function. To many, the "feed" at Belmont Mansion was the most important event of the day. It is therefore not surprising that about 150 loyal Spare Pairers gathered around a chicken-andwaffle supper that was worthy of the name.

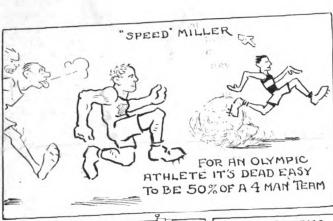
The dinner took the form of the annual meeting, and while all regular business was dispensed with by general consent, the results of the ballot cast for officers were announced. Leo C. Gainor was elected President simply because the respect that the society has long held for the man and his services "carried the convention." The other results were also very popular in that J. H. Carrol was chosen Vice-President, J. D. Ferry Secretary, and W. F. Laudeman Treasurer.

After F. H. Williams had introduced the new

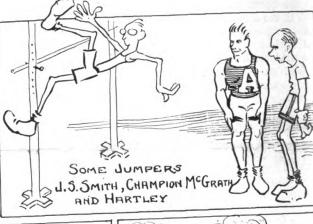
president, Mr. Gainor performed as toastmaster calling upon the retiring and newly elected offi cers, each of whom commented upon the success of the past year and the bright prospects of the new one.

The prizes for the athletic conquests were then presented by W. B. Eldridge. These prizes consisted of attractively designed gold and silver medals for first and second place winners. Before the dinner closed, the entertainment, provided for by the dinner committee, put a finishing touch to the excellent work of that body. By the way, H. R. Clegg's committee consisted of Lafferty, Boyle, Wayne, Wahl and Wurst.

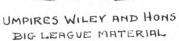
Every Spare Pairer modestly admitted that the annual outing of the society was the greatest that ever happened; but that was simply because their vocabularies couldn't produce anything stronger. It was a "crackerjack" affair throughout and everybody that attended did his share to make it thus; and next year's membership will show what a boost an outing like this is to the progress of a society!





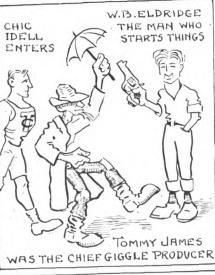




















The Means by Which Infection Is Transmitted

By Dr. Alvah H. Doty

Medical Director of the Employees' Benefit Fund Committee of the American Telephone and Telegraph Company,
The Western Union Telegraph Company, and The Western Electric Company

No subject relating to the protection of health is more generally misunderstood by the public than that which deals with infectious diseases and the way they are transmitted from one person to another. Certain theories connected with this subject which have been long and universally accepted are now known to be largely wrong. The most notable among them being the so-called "fomites" theory which maintains that clothing, baggage, cargoes of vessels, various textile fabrics, money, etc., are common agents of infection, whereas the truth is that these articles transmit disease only in rare instances. This belief has in the past been very generally accepted although but little scientific evidence has been presented to uphold it, and its chief support lies in the fact that it offers a ready and plausible explanation for outbreaks of infectious disease which at the time cannot otherwise be explained.

As a result of this belief the public are harassed lest they become infected through the medium of the clothing of those they meet who have been in contact with a case of infectious disease, or who may themselves have been directly exposed and fear they may transmit infection in the same manner to members of their family or others. The alleged danger from this source has been responsible for many unnecessary and illogical practices, for instance, some persons handle car straps very cautiously for fear of contracting disease, although those who are timid in this direction will handle the rail of a public stairway and many other exposed surfaces with impunity, still one offers the same possibility of transmitting infection as the other. It is true that these exposed surfaces contain many germs, but as a rule they are harmless ones and exist everywhere, and will be found on our hands, the linen we wear, etc. While it is possible in some uncommon instances that "pathogenic" organisms, i. e., the germs which cause infectious diseases may be transmitted from one person to another by clothing, etc., the danger from this source is so very remote that it need cause no apprehension. Even if some of the infectious organisms were deposited upon our clothing, they would probably soon become inactive from exposure and from the fact they are separated from the substance which provided them with nourishment.

Old and filthy paper money is looked upon as a fruitful source of infection al-

though there is but little truth in this belief. While it is advisable and proper that money in this condition be removed from circulation it should be understood that it is for appearance sake rather than because it is a medium of infection.

It is also believed that infection is transmitted over long distances through the air, for a mile or more. There is not only no definite scientific proof of this, but in the light of our present knowledge this theory is not entitled to respectful consideration.

There are innumerable other popular theories of this kind which have long been cherished by the public but in recent years have been proven to be without substantial foundation, therefore it is of interest to know what are the true media of infection. Fortunately, we now have very extended and definite information on this subject.

Infectious diseases are transmitted directly from one person to another through the medium of various discharges from the body which contain infectious germs or organisms. These germs may also be transmitted from one person to another indirectly through the medium of food or drink or by certain insects. If all cases of infectious diseases were well marked and could be promptly and easily identified the danger of their extension would be greatly diminished, for we could then better guard against infected discharges and eruptions. but unfortunately these diseases very often appear in a mild, irregular or unrecognized form and are overlooked or mistaken for some simple malady and probably treated with home remedies.

Another very common and dangerous means of infection along these same lines and which more recently has been fully recognized is the transmission of disease by what are known as "Carriers," i. e., persons who contain actively infectious organisms within their body but present no evidence of disease themselves and apparently are well, yet through the medium of their discharges may infect water, milk, food, etc., and thus transmit disease to others. This very frequently occurs in connection with Typhoid Fever and Cholera and also in other diseases.

Certain insects transmit disease, for we have indisputable evidence that Malaria and Yellow Fever are contracted by the bite of certain varieties of the mosquito, and so far as we know at the present time, there are no other means by which these diseases are transmitted. The danger of

the fly as a medium of infection is also known to sanitarians. The flea that infests the rat is a common means of infection in Bubonic Plague, and it has recently been proven that the body louse transmits Typhus Fever from one person to another. Both Plague and Typhus Fever are referred to in the earliest medical literature and in the past have caused great loss of life. For instance, during the 14th century Plague invaded Western Europe and it is estimated that during a period of twenty years or more under the name of the "Black Death" it destroyed onefourth of the population of that section of the globe. Such a condition could not occur today, for the infectious organism of Plague, as well as the germ which causes other infectious diseases, has been discovered and the means by which they are transmitted is known, therefore we can now deal promptly and successfully with outbreaks which in the past were followed by very serious consequences. This exceedingly important advance in our knowledge of this subject is largely due to the work of Pasteur and Koch, respectively a French and German bacteriologist who. working independently of each other, gave to the world, about the year 1880, the first definite and satisfactory information regarding the germ origin of infectious dis-This was followed by active and extended investigation of this subject and has led to the identification of the specific organism of Tuberculosis or Consumption, Typhoid Fever, Cholera, Diphtheria, Bubonic Plague, and other infectious diseases. It would be difficult to estimate the importance of this discovery, for it means that never again will outbreaks of infectious diseases be followed by the devastation which has occurred in the past, provided modern sanitary methods are employed.

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Infectious diseases thrive best where there is filth, overcrowding, bad air, etc. As an illustration, during the outbreak of Typhus Fever which occurred in New York City during the winter of 1893-1894, there were over 700 cases, and all but two or three of them were among the tenement and lodging-house population, where uncleanliness and overcrowding were markedly present.

The prompt detection of infectious disease is very important, for it not only offers to the one affected a better chance of recovery, but the proper isolation of those who are sick, which is an exceed-

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SUPPLEMENT TO THE TELEPHONE NEWS

ingly important factor in protection, goes far to prevent the extension of the disease. The value of this may be illustrated as follows: Typhoid Fever (which must not be confused with Typhus Fever already referred to) is slowly ushered in and may excite little or no attention, particularly if the case is very mild or what is commonly known as "walking" or "ambulant" Typhoid. This type of the disease is dangerous because the patient may receive no treatment or care until some serious complication occurs, whereas if prompt medical advice had been secured, not only might the patient's life have been saved, but the early detection of the disease would probably have led to the discovery of an infected water or milk supply, and through this knowledge further sickness or death may have been prevented.

Tuberculosis exists almost everywhere and its early recognition is also of great importance; unfortunately, cases of this disease frequently reach an advanced stage before they are detected, then but little can be done for the patient and in the meantime infection has been very generously distributed. Smallpox often appears in a mild form and may be mistaken for some condition which is not infectious and through this error a serious outbreak may follow.

Diphtheria, Measles and Scarlet Fever, which are so constantly with us, are frequently unrecognized, and there is no doubt that the increased number of cases of these diseases which occur at the beginning of school year is due to their transmission through the medium of discharges from undetected cases and not from infected clothing as it was formerly supposed.

In Tubercuosis it is the sputum or expectoration that contains the infectious organism, and this may be transmitted in many ways, particularly where uncleanliness and overcrowding exists, for in such instances less care is taken against the danger from this source. Besides, under these conditions many things are used in common which act as media of infection. In Typhoid Fever and Cholera it is the intestinal discharges which transmit the infectious organisms and through this source water, milk, and food supplies may become contaminated. In Diphtheria it is the discharge from the nose and throat we must fear, and in Measles and Scarlet Fever the discharges from the ears as well as from the nose and throat contain actively infectious organisms.

The great frequency with which Diphtheria, Scarlet Fever, and Measles occur, particularly among children, is due largely to carelessness in dealing with the discharges, for in Measles and Sacrlet Fever the danger from the latter is far greater than the eruption which is present, although this is not generally known. Children keep close to one another and cough and sneeze in one another's faces,

and there is but little wonder that infection is commonly transmitted, particularly when so many of these cases are either unrecognized or are not under proper medical supervision. One factor which favors this condition is the very common practice of treating those who are only slightly ill with domestic remedies. While this, in some instances, may answer the purpose, there are many times when the lack of prompt medical treatment has not only been responsible for loss of life, but has led to serious and extended outbreaks of infectious diseases. Proper care in this direction must be regarded as an economical factor as well as a greater protection to the patient and to the public health.

We now deal with facts which have been established as the result of exhaustive scientific investigation and practical experience, and the erroneous theories of the past have been replaced by definite knowledge regarding the true means by which infectious diseases are transmitted.

The modern method of protecting the public health is by prevention rather than treatment. The basis of this is cleanliness, the proper care of one's person, his household, and the aid he may extend to others in this direction. If our health is preserved we are far better able to resist disease than if we are in poor physical condition. This is very clearly demonstrated, particularly in connection with Typhoid Fever and Tuberculosis, for these diseases usually select for their victims those who are in impaired health and whose resisting power is weakened.

Preventive measures if practically applied offer not only valuable means for improving the public health, but will go far towards eliminating infectious diseases. These measures are not difficult or unpleasant to carry out, however; success depends upon the co-operation of the public, and for this reason it is important and necessary that the means by which infectious diseases are transmitted and the methods to be employed in dealing with them should be properly understood.

Before concluding this subject a word must be said in reference to the mosquito and the fly, for their extermination is an important preventive measure. While we have more definite scientific information regarding the propagation of the former and its danger as a medium of infection, there is ample proof that the fly also transmits disease.

Those who live in mosquito-infested districts are familiar with the little squirming bodies known as "wigglers." about a quarter of an inch long, which are found in stagnant pools of water, rain water barrels, old tinware, broken roof leaders, crotches of trees and almost any place that water may be collected. These are mosquito larvæ and represent the second stage in the propagation of this insect.

Mosquitos breed only in water, upon

the surface of which they deposit their eggs—usually at night time, for it is then that the mosquito is most active, as we well know; generally after twenty-four hours the eggs hatch and the larvæ, to which we have just referred, drop into the water. After a period usually of seven or eight days, sometimes longer, they pass to the pupal stage, which is of short duration—not more than two or three days and is preliminary to the birth of the full-grown mosquito.

As the common inland mosquito will lay three or four hundred eggs at one time, and as these become winged insects in about two weeks, it is not difficult to understand the rapidity with which these insects propagate. Mosquitos do not as a rule breed in large bodies of water, but prefer small quiet pools where there is a large amount of organic matter, therefore filth contributes to the propagation of the mosquito as it does with the fly.

It is of great interest to watch the larvæ or "wigglers" for they are voracious eaters and may be seen darting about the water in quest of food, which they find in abundance in filthy pools. Curiously enough, while a larva cannot live out of water it must also have air, and if carefully watched it will be seen every minute or so to come to the surface above which it extends its tail containing the opening of the respiratory tract. The knowledge of this is taken advantage of in the extermination of the mosquito, for if the receptacle containing larvæ cannot be removed or destroyed, a small amount of semi-crude petroleum oil is sprinkled over the surface of the water in the proportion of about half a pint of oil to an estimated water space of about ten feet in diameter. When the larva extends its tail above the surface, which is covered with oil, the minute opening of the respiratory tract is plugged up and the larva dies of suffocation within fifteen or twenty minutes.

This article does not admit of a full description of the propagation and extermination of the mosquito or the fly, but it will be sufficient for the present purpose to state that mosquitos breed only in water and that success in exterminating them depends chiefly upon the care and patience which are observed in detecting their breeding places. Efforts to exterminate either the mosquito or the fly by destroying the winged insects, except for personal comfort, is worse than useless, for it does no good and is misleading, as it abstracts attention from the only means of successfully exterminating these insects, and this is by destroying their breeding places.

Flies breed wherever there is filth, their favorite breeding place being the stable, therefore, while their extermination is for various reasons more difficult than the mosquito, the most satisfactory results are obtained by the strict observance of cleanliness and other proper sanitary measures.



John Lowrence Swayze

General Attorney of Our Companies

Trenton, the Capital of New Jersey

By G. B. Garwood, District Correspondent

HE important announcement of Mr. J. L. Swayze's appointment as General Attorney, effective July 1, is a source of unusual interest and gratification throughout the territory of our Companies.

Although the exactments and confining nature of Mr. Swayze's work have prevented his from becoming as familiar a face among us as we would all enjoy having it, probably there is no keen student or thinker on telephone subjects who has failed to appreciate the greatness of his accomplishment in that field since his first association with the Bell System in 1905. His identification with the "Jersey Rate Case," and all that that remarkable case signified and developed, stands prominent in the annals of our Companies; to no more characteristic effort or signal success could reference be made at this time.

Born at Newton, Sussex County, New Jersey, on October 18, 1868, Mr. Swayze received his early education at the local schools, subsequently attending Phillips Exeter Academy at Exeter, New Hampshire. Turning to the study of law, he was admitted to the Bar as Attorney at Law in November of 1895, and as Counsellor at Law in the same month of 1898.

In January, 1899, Mr. Swayze was appointed Prosecutor of Pleas of New Jersey, serving until March, 1902, when he was appointed Secretary to Governor Murphy of that state. Two years later, an April 1, 1904, he was appointed Assistant Attorney-General of New Jersey; and after serving twelve months in that capacity, during which period he recognized to the serving the serving that the serving the serving the serving the serving that the serving the

riod he reorganized the office of the Attorney-General, he resigned to join the legal staff of the American Telephone & Telegraph Company.

Since 1905 he has been a Bell man. Entering the office of General Edward P. Meany, Mr. Swayze assumed charge of all high-tension interference, electrolysis, and municipally owned conduit cases, and upon his appointment as General Solicitor of the American Telephone & Telegraph

N one of the most important of the thirteen original states, two cities have long been struggling for supremacy between themselves-particularly when the census statistics have been under consideration. Trenton, the capital city, has had a sharp contest with Camden, the other large city of that state on the Delaware, and the 1910 census snaps the watch with Trenton 96,815 as against Camden's 94,-538. Furthermore, it is doubted if the smaller city's progressive boards of trade can beat those of the optimistic capital city when estimates of growth since 1910 are made.

Industries, when situated in a spot halfway between two of the nation's most populous seaboard cities, can hardly escape heavy and rapid growth. In that particular also, Trenton is especially favored, for it manufactures iron wire by the mile, flat and sanitary pottery by the trainload, more glass than a whole public school turned loose can break in a week, besides watches, terracotta pipes, bricks, linoleum and oilcloth in unheard-of quantities.

Never has Trenton's growth been slack; on the other hand, its gain in industries and in total population has been remarkable. Within a single recent year ten large manufacturing plants have been prevailed upon to select Trenton. Trenton has long felt the chug, chug of the machinery, but, like in the starting of an automobile, the "full-of-life" sensation comes with the lurch forward. Cold statistics may not have had time to show this, but no better evidence is needed than the fact that the city is now taking the initiative in many matters that were neglected in the past.

This is no doubt due to a great number of causes. However, it might be well to mention that two of these causes are Frederick W. Donnelly and Arthur Metzger. Mr. Donnelly for many years has been working to secure better waterways for the city, and the Delaware River channel, opened last May, is largely the result of his efforts. It took a lot of persistency to keep on talking deeper Delaware to men whose enthusiasm

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is not aroused by any enterprise which does not promise immediate cash returns, and Trenton, like many another town, had a considerable number of this class of patriots; but Mr. Donnelly won out and is now mayor. Mr. Metzger is secretary of a wide-awake Chamber of Commerce and is doing much to let folks know what Trenton has and is going to have. He is fortunate in having with him in his work an organization made up of leading citizens which is different from a good many similar bodies in that it is actually "on the job." The work of these "boosters," consequently, is contributing in no small degree to the development of civic pride among the people of the city and spreading glad tidings about "the center of the busiest part of the world." Sounds like circus advertising, but Mr. Metzger or any other member of the C. of C. will endeavor to prove it with figures if given one-quarter of a chance.

Commission government in Trenton, although in its infancy, has accomplished many definite results. Open competitive bidding has been adopted for contract work; legal advisers to city boards have gone out of existence with these boards and in their place a legal department has been established; city business is transacted more quickly than ever before; city employees are required to devote their entire time to city work; and, above all, business efficiency has superseded politics.

Tradition says that when they got ready to draw up the street plans for the city, somebody upset a box of matches, and that the early city architects were guided by the result. The only reason we have to doubt this story is that the foundations of the city were laid in 1685, almost 150 years before matches were invented. By the way, that 1685 date is very conservative, for an influential body of scientists claim that the southeastern portion of Trenton was occupied as the home of man in the Ice Age. The indications are that at one time the mouth of the Delaware was directly south of Trenton and it is in this deposit of river-wash that evidences of primitive man have been found, such as skulls, stone implements, et cetera.

Telephone Growth in Trenton

However, this story is backsliding entirely too far, as this all occurred several thousand years before the inhabitants of the locality had telephone service offered them from the back room of the Western Union office. For it was in the late seventies that F. H. Duncan, who had been an operator during the war, saw fit to combine the telegraph and the telephone business at his little corner office at State and Warren Streets. No startling development took place although the business had begun to show signs of a steady growth, when failing health caused Mr. Duncan to retire about 1882. It was then that a grocer who had been much interested in telephonic matters was made manager. And to this man, Thomas Baker, falls the honor of being the first local manager who gave his whole time to the telephone. He remained in the business but a short time, however, and was followed by J. A. Macrellish.

The Telephone Company was now experiencing its first growing-pains and had to move its quarters from the northeast corner to the second floor of the southeast corner of State and Warren Streets. A tower was placed on the roof, and a sixty-five-foot pole line was erected north and south on Warren and east on State Street; the pole placed at Broad and State Streets being one of the largest ever used, and so heavy that it broke three different wagons before it reached its destination. Prior to this time the Western Electric switchboard had been one of the pinplug and bar type, and the number of stations was just nearing 250 when the Company had to make way for Trenton's first office building. In this connection it is interesting to note that of this number almost 100 of the first users still have their names in the telephone directory. As has been stated, about 1887 the office was removed to the northeast corner—this time to the third floor -and in so doing they eliminated the tower on the top of the old building.

The Western Union lines around Trenton and the stations in the various plants were gradually replaced by telephone equipment and telephone operators, until along about 1895 the New Jersey Steel and Iron Company, the last concern to insist on retaining telegraph operator and

equipment, was won over.

Mr. Macrellish, member of the Pioneers' Association, received his early training as a Western Union operator, and during the many years that he served as Trenton manager he did much to further local conditions. When it became necessary for him to be absent for six months in 1884 and 1885, G. W. Callanan filled the position of manager. George Callanan, who during the some thirty years he has been in our Company has become known to hundreds, is now in the Doylestown District and is located at Bristol. The telephone growth of Trenton has contin-

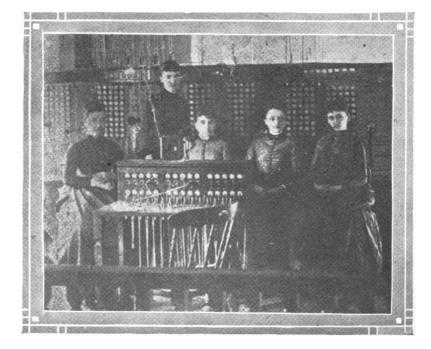
ued to make steady progress under such District Managers as F. M. Compton, J. M. Repplier, T. B. McClain, and last but not least, the present efficient "D. M.," C. R. Fairchild. It is difficult to treat of these managers collectively, but if there is any one point that stands out above all else, it has been their ability to make friends for our Company; anyone familiar with the conditions in Trenton knows that in this respect they have been exceptionally successful. In fact it is said that Mr. Repplier, when he was starting on his result-producing campaign for service lines, almost put one of the hotels out of business because all the rural visitors when in Trenton made his office their headquarters. It is also suspected that E. B. Zerman, the Plant "boss," had much to do with this condition of affairs. The fact is that from the start there have not been many telephone happenings take place in Trenton that "Ed" Zerman has not been more or less connected with.

Another employee who has grown up with the Company is Miss Mary F. Beach, who began as an operator on the second floor of the old southeast corner office. After serving many years as an efficient chief operator, Miss Beach was appointed Traffic Supervisor's clerk, which position she still holds.

There are many others who in the past have had much to do with the development of our Trenton branch, whose work would be mentioned if space would permit. When the first long-distance granular carbon transmitter was received there were no instructions to be found packed with the shipment. Therefore the men took the transmitter entirely apart to find out how it worked, then put it together and tried it out The following day a letter came saying that a long-distance transmitter had been shipped and that under no circumstances should it be tampered with, as it was of very delicate construction. That ruling has been obeyed from that day, This is but one example of the "ability-to-do-things-for-oneself" spirit that characterized the early employees and explains why the telephone company in Trenton progressed by strides rather than steps.

In 1899 the Company's offices were moved down the street to 216 East State in order to make room for the increased business. But a consistent growth of about 500 stations a year, until it has now reached 8200 stations, was too much even for these enlarged accommodations. Consequently the Company is now erecting a splendid five-story building—a \$120,000 proposition, not including the equipment, which will cost approximately \$175,000 more.

The days when the telephone company at Trenton was confined to a back room, where t was customary for the two or three operators when they wanted to get in touch with a number not directly in front of them to sing out, "Lizzie. give me 76 on the green" or "36 on the brown"these days have long passed. Now all our Trenton employees, and there are about 150 of them, are looking forward to next May, when they hope to occupy the new building; the first floor of which has been set aside for the Commercial office, the second for an up-to-date rest and locker room, and the third and fourth for the operating and terminal rooms respectively.



A View Taken in 1888 of the Switchboard the Third Floor of Building at State and Warren Streets, Trenton

TRENTON TRAFFIC FORCE

Miss Edith F. Allsop Chief Operator

UPPER VIEW

Shows Fifteen Position
Toll Switchboard

Standing: Misses Gertrude Rossier and Annie Corbett

Seated at Desk are Miss Margaret Kildun and the Chief Operator

LOWER VIEW

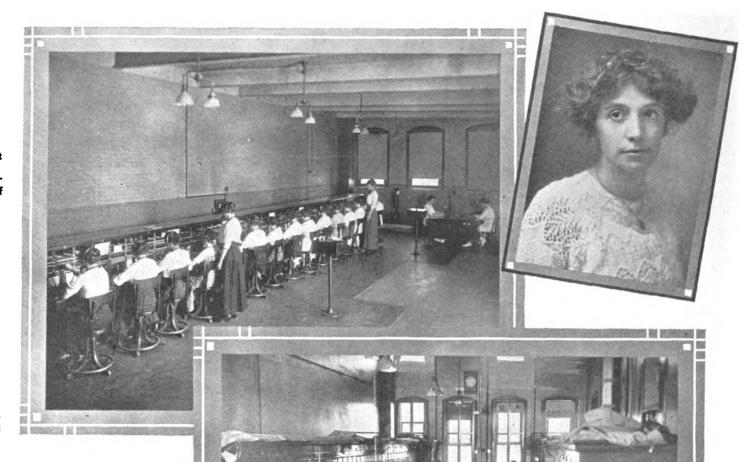
Seventeen of the Twentythree Position on the Left are Shown, and All of the Sixteen on the Right

Left Standing:

Misses Rose Becker, Anna Whalen and Emma Baudlet

Right Standing:

Misses Margaret Kıldun, Catherine McCarthy and Clara Rafferty



Revolutionary Landmarks

It is interesting to note that the Company's building is upon the site of the surrender of the Hessian army at the Battle of Trenton. This was one of the great, if not the greatest, battles of the Revolution, coming as it did at the critical period of the war. It was early in December, 1776, during Washington's flight to Morrisville, that Thomas Paine wrote the memorable words, "These are the times that try men's souls."

When Washington with some two thousand men crossed the Delaware in a storm upon the early morning of December 26, he stationed his battery where the present Battle Monument now stands. The surprised Hessians waded through the Assanpink Creek, and with the exception of a few that got stuck in the bog, advanced up through an apple orchard; however, Washington and his men, from their position "on the water wagon," had a big advantage and finally captured the Hessian forces on the ground where the Bell offices now stand.

However, in this respect our Company has plenty of competition, for Trenton abounds with historical sites. For instance, there are those picturesque old barracks, through which a street has been cut, that were erected in 1758 to resist the threatened invasion by the French and Indians. Fortunately these barracks are now to be restored and the neighborhood made into a park. The city has several statues of Washington, the the largest of which stands upon a splendid 160-foot column, marking the place where he placed the cannon at the Battle of Trenton.

Historically Trenton is important and has a right to be proud of it; as a matter of fact, the city had a hairbreadth escape from being the national capital. For in 1784 Congress met in Trenton, and an ordinance was passed to lay out a Federal city upon either bank of the river and to provide suitable buildings at a cost of not over \$100,000. The next year the South defeated the

appropriation measure by one vote, and thus died the plans to make Trenton the capital of the United States.

Institutions and Parks

The city was partly consoled, however, in 1790, when it was made the state capital of New Jersey, and to-day it has its full share of public buildings; the three largest being the capitol, court house and city hall. The Municipal Building is a magnificent marble structure that has just been completed. This building contains a private branch exchange of 5 trunks and 37 substations, which takes care of all the city departments. Some idea of what the city thinks of the service rendered may be gained from the fact that a chief of the fire department once planned to eliminate the fire-alarm system since over 80 per cent. of the fire alarms "came over the Bell."

It is interesting to recall that the first longdistance telephone outside of the central office was installed in the janitor's room at the State House. This has since become the largest P.B.X. in Trenton. The Telephone Company originally supplied the state with operators for this switchboard at so much per hour and kept each operator there but a few months so as to give all an equal chance for advancement at the central office. This plan worked all right until Miss Schlottenmeier was removed. She had performed her work so proficiently and with such excessive cheerfulness that, in order to retain her, a civil service examination was prepared by the state. This she passed with first honors. To show her real worth, Miss Schlottenmeier successfully handled an exceptionally heavy traffic last year when President-elect Wilson was in Trenton.

Beside the State House, the city contains many other state institutions, such as the arsenal, prison, armory, and hospital for the insane, each one of which has its P.B.X. The State Hospital for the Insane, for instance, has an exchange with 85 stations.

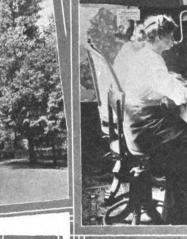
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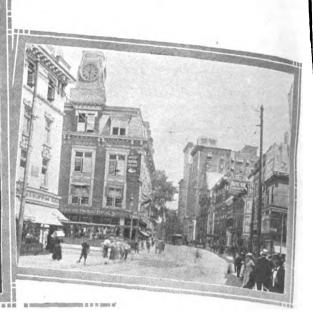
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Trenton Views







A Residence Street, State Normal and Model Schools in the Background

Miss Elizabeth Schlottenmeier at State Capitol Switchboard

The Business Center of Trenton, Old City Hall with Tower on the Corner

Another institution, that is under the charge of the city and not the state, is a tuberculosis hospital. Such an institution a few years ago was practically unheard of. To-day, however, Trenton has a first-class tubercular sanatorium where sufferers from tuberculosis, especially those of the indigent class, can go and receive the best of treatment. It is hardly necessary to mention that this hospital is also up to date in its telephone equipment.

Really it is a difficult matter nowadays to find a Trenton institution without Bell telephone service. Take, for instance, the city's thirty-four public schools, every one of which is connected by our service, thus enabling the pupils to become familiar with its use and value.

New Jersey's capital has drawn within its limits a number of noteworthy educational factories. The State Normal and Model Schools, for example, are second to none and have an enrollment of about 1200 students from all over the East. Among other educational institutions of the highest grade may be noted the State School for Deaf Mutes, an Industrial School for Girls and a large High School. The School of Industrial Art is also making a name for itself in its particular field.

As far as art goes, Trenton shows its good taste in the most unexpected places throughout the city. Now everybody more or less expects the public library to be the show window of a town's stock in artistic goods. Even here Trenton "springs a surprise"; its library is different, for it is not only pleasing to the eye with its weathered oak interior, but there is a homelike atmosphere about it that is unfortunately rarely found in a free library. But, as was said, this might have been anticipated; but who would expect to find taste shown in the construction of the State Prison? Nevertheless it is here, and the entrance is such a novel Egyptian design that the place almost looks attractive. The warden was seen in his shirt-sleeves shoving a lawnmower over his lawn. How many of us in his

position could overcome the temptation to "let George do it"? However, it is just such men as this warden that put Trenton "on the map." The State Prison, by the way, has not been overlooked in the matter of telephone equipment.

Riverside Cemetery, with its large trees and abundance of shrubbery, bordering the banks of the Delaware, is beautiful, and it is here that stalwart fighter, General George B. McClellan, lies. Then there is Cadwallader Park; everybody in Trenton seems to be proud of Cadwallader Park and to derive some benefit from it. This delightful breathing-ground contains about a hundred acres and is supplemented by several smaller parks.

(Continued on page 8)

John Lowrence Swayze

(Continued from page 1)

Company, in April of 1911, assumed additional charge of rate cases and other work before the Public Service Commissions.

On December 1, 1912, he was appointed Attorney for The Bell Telephone Company of Pennsylvania and Associated Companies, the manifold duties of which office he has performed so conspicuously up to the time of his recent appointment as General Attorney.

The organization of Mr. Swayze's department. in charge of all Public Service Commission matters, includes-in addition to the General Attorney-Messrs. R. V. Marye, G. R. Grant and Frankland Briggs as Attorneys and Mr. P. H. Burns as Chief Clerk.

A resident of Newark, Mr. Swayze has for several years been prominently identified with the business affairs of northern New Jersey, particularly in financial circles, and for a considerable period was President of the Merchants National Bank of his "old home town" of Newton, which office he resigned on January 1st last.



New Castle District

Just at the beginning of an electrical storm in Beaver Falls the controller box on the front end of one of the traction company's cars caught fire. immediately filling the front vestibule with flames. It is probable that serious injury would have resulted to some of the passengers had it not been for the quick action of J. F. Connor. one of our linemen, who was a passenger on the

Mr. Connor was sitting well forward in the car, and when the crash and explosion came the other passengers became confused and made a rush for the rear door, blocking the aisle. Working his way through the crowd to the rear platform. Mr. Connor smashed the glass of one of the rear windows of the car and pulled the trolley pole off, thus cutting the circuit. HARPER.

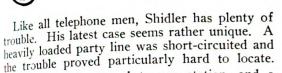
Pittsburgh District

A foreigner, after paying his bill at our New Kensington office, was asked by the Cashier if he would like to see the operating room. His reply was: "Me like to see operating room. but me 'fraid it costa too much. My wife, she g see operating room in hospital. It costa me over \$100." After being told that there would be to charge in connection with it, he was shown through the operating room, and was very much interested in the working of the switchboard.

J. W. Shidler is our connecting company representative at Marianna, Washington County, Pa Shidler is busy spreading what he calls the Gospel of Higher Civilization," by which has means that he is always pushing Bell service into new territory and making a dozen bells ring

where none rang before. Digitized by





Finally it was traced to one station, and a careful examination disclosed that a parrot whose cage hung in a convenient position had eaten all of the insulation from both wires of a No. 14 twisted pair.

This at least equals the cases where rats and squirrels have interrupted our service by gnawing holes in cables.

Uniontown District

After a subscriber to the Fairmont exchange had visited the Cashier's office and paid her telephone bill for July, the Local Manager offered her some blotters to take home. She thanked him very courteously, but stated that she didn't have much use for blotters, as she used the telephone instead of writing letters.

Great interest is being shown by employees of the Plant and Traffic Departments in offering suggestion slips containing names of prospective subscribers, and as a result of this enthusiasm the following new applications and revenue have been secured during the month of June in the Uniontown District:

TRAFFIC DEPARTMENT

| Exchange | Applications Secured | Revenue, New Sup. |
|---------------|-------------------------|----------------------|
| Monessen | | \$96.00 |
| Belle Vernon | | 54.00 |
| Fayette City | | 18.00 |
| Charleroi | | 21.00 |
| Donora | | 69.00 |
| Brownsville | | 111.00 |
| Clarksburg | | 69.00 |
| Connellsville | | 18.00 |
| Dawson | | 18.00 |
| Fairmont | | 60.00 |
| Morgantown | | 48.00 |
| Masontown | | 33.00 |
| Uniontown | | 49.00 |
| Pla | NT DEPARTMENT | |
| Donora | 2 | 36.00 |
| Brownsville | | 39.00 |
| Monessen | | 18.00 |
| Clarksburg | | 117.00 |
| | <u> </u> | |

Wheeling District

Grand total46

\$874.00

MISS HEPPLEWHITE.

Wheeling toll work still shows up well and the operators are working hard to hold their record. During the flood in March we had the two largest days, and considering the number of telephones out of service the record was good. The next largest day came in July, when 635 calls were handled and but 46 lost, a percentage of 7.3. On this day the recorders were taken away from the board so that two extra operators could put up the tickets and make reports to subscribers.

A short cut for folding line orders has been put into practice by our Steubenville Manager's clerk. Time is a valuable asset in this office, and so much of it was consumed in the old way, folding orders one at a time, that a number of them were tried at one time, and twenty-four were thus found to be folded satisfactorily. These are placed in a drawer together and withdrawn



Our Supervising Force, Trenton District

one at a time as needed. If necessary, some hard object is run down each side to crease a little deeper before placing in a machine.

When overhauling the Fairmont-Wheeling toll line our men wore high canvas leggins as a protection from snakes. This work covered a seventy-eight-mile stretch through West Virginia hills and consisted of replacing defective poles and hand joints and putting up new cross-arms.

An application obtained by District Manager H. G. Bills from the Wheeling Electric Company for private branch exchange service includes two trunk lines and eight stations, superseding an individual line.

Born on a plantation, Martha and Henry Black found no time for school. In later years when they planned for a home, plans seemed nil, as Martha's work—out by the week—permitted no time for a home, and work by the day necessitated a means of communication.

Someone suggested a telephone; this seemed out of the question, as one must read to find numbers. A call at our office settled the question. The home was purchased and a telephone installed. Numbers used oftenest are memo-

rized; Information supplies new numbers, and in thus overcoming their handicap these two have increased their earnings to almost double the old way.

The Lebanon Telephone Company, Lebanon, Ohio, for years allied with another source of communication, has entered the ranks of Bell connections through Harriettsville, Ohio, bringing with them 200 stations.

A storm which recently visited Marietta, Ohio, blew the roofs from several houses; one of these flew through the air, tearing away our messenger wire and letting a 50-pair cable down across the city's electric light wires; the sheathing was burned away, permitting the rain to enter, which, with minor accidents, destroyed service to 450 telephones. Our men were quickly at work and but little inconvenience was caused.

During the same storm a cloudburst caught a train a few miles from the town and the rapidly rising water threatened to drown the passengers. One of the train crew was sent to the nearest telephone and a fire crew summoned, the roofs of coaches were cut through and passengers rescued. These passengers would doubtless have found a watery grave had it not been for a timely toll call.

MISS DIEHL.

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Aug. 1

THE TELEPHONE NEWS

ed the first and fifteenth of each month in the inte The Bell Telephone Company of Pennsylvania The Central District Telephone Con The Delaware & Atlantic Telegraph & Teleph The Diamond State Telephone Con

F. H. BETHELL. President
FORD HUNTINGTON, Vice-Pr
L. H. KINNARD, Second Vice-President and General Manager
W. S. PEIRSOL. Sec'y and Treas.
J. H. CROSMAN, Jr., Gen'l'Com'l'Sup't J. L. SWAYZE, General Auditor
J. C. LYNCH, Gen'l'Sup'tol Traffic
J. H. HONS, Auditor
S. H. MOORE, Counsel

Managing Editor, E. H. HAVENS, 17th and Filbert Streets, Ph

SUBSCRIPTION PRICE: To employees of the above Companies
To employees of OTHER BELL COMPANIES,
payable in advance NO CHARGE

Vol. IX

AUGUST 1, 1913

No. 15



OBERT MURRAY FERRIS, the Chief Engineer of The Bell Telephone Company of Pennsylvania and its associated companies, was drowned while swimming, Sunday morning, July 13, at Siasconset, Nantucket Island. He had started on his vacation the preceding day and joined his wife and two children, who were spending the summer at Nantucket. His sudden death was a great shock to all, as his splendid personality and great abilities made him the friend of all who knew him, and a highly valued member of the Bell organization. He was one of the leading telephone engineers of the world.

Mr. Ferris was thirty-seven years of age. After graduating from the Massachusetts Institute of Technology in 1897, he started work in the Engineering Department of the New York & New Jersey Telephone Company as an engineering His capabilities assured his rapid advancement. In 1902 he was placed in charge of the fundamental plan and estimate work, and soon after became the senior engineer, acting for the Chief Engineer in his absence. When the organization of the New York & New Jersev Telephone Company was consolidated

with that of the New York Telephone Company in 1906, he became an important member of the combined Engineering Department, and in 1908 he was appointed Chief Engineer of the New York Telephone Company, succeeding Mr. J. J. Carty, who became Chief Engineer of the American Telephone & Telegraph Company. In 1912 organization changes were made to bring more closely together the eastern group of Bell Companies, comprising the New York Telephone Company and The Bell Telephone Company of Pennsylvania and Associated Companies, and Mr. Ferris was appointed Chief Engineer of all of these companies. The work which he has done and the friends in all parts of the organization who mourn his sudden death express more adequately than any words the loss which we have suffered.

Our Purpose

R. C. G. DuBOIS, Comptroller of the American Telephone & Telegraph Company, concludes as follows a recent article on the Bell System:

"The well-defined and widely known purpose animating the owners, the managers and the employees of this aggregation of (Bell) companies is to give an efficient and universal telephone and telegraph service throughout this country. It is their sincere conviction that nothing short of such a universal service can be adequate to the needs of the country. It is their firm belief that there is no way of getting this service efficiently except through one system, conducted under American business methods and subject at all times and all places to the scrutiny and control of the public authorities. It is their earnest intention that the Bell System shall meet all the exacting requirements of such a service, alike in the daily routine and in the great emergencies.

"Doubtless everyone will agree to these three fundamental propositions: The public is entitled to an efficient service at fair rates; the employees are entitled to good working conditions and fair wages; and the investors are entitled to a fair return on their money. But in their specific application everyone must contribute clear thinking, hard work and loyal cooperation as between individuals, departments and companies."

This is what One System—One Policy -Universal Service means. Read it over again and absorb a real enduring impression of what the flag we're marching under symbolizes.

A Word on Protection

OME twentieth-century philosopher. gazing from his office window not many days ago, picked up a real nug. get of thought. Before him the ragged horizon of sky-scrapers jammed a saw. tooth edge into the patient blue; a thousand jets of smoke and steam combined in one mighty haze which overhung the city: and through it all the growl and rumble of the traffic jarred. Surely the setting was one to inspire.

"Some men can do 365 days' work in 250 days," said our philosopher, "but no man ever did 365 days' work in 365."

And was ever truer word spoken?

Point us out the man who, however great his endowment of health, strength or will-power, can do his best, day in and day out the whole year through, with no thought of recreation, no "going back to nature" for new thought, new strength and new ambition in this high-speed era.

And now that the recreation—the rest period of the year is on the calendar before us, with all its enjoyment and its occasional abuse, let's further analyze its purpose, or at least that part of its purpose which concerns you and me as workmen and workwomen.

What does the public want from us? The President of our Companies answered this question in a recent address when he said: "The public wants nothing from us but service, and it demands that that service be of the best. Therefore, one of the important things that we have to do is to protect the service."

So, just as we render service must we protect it. And, if we would really protect the service, what better or more fundamental method could be conceived than that every man and woman of us should protect ourselves—we who furnish this service?

Regularly as the summer months—the long-anticipated vacation time-swing round, there arises the old and always important question: what can we actually accomplish for ourselves through this prolonged breathing space? Are we building up for the long siege which is to follow? Do these days of recreation make for selfimprovement? Do they make for harder muscles, clearer eyes, steps more sprightly. the whole mental and physical self more sound and more alert? Are we protecting ourselves and our ability to serve and serve with the best that nature and training has

And, too, how about our summer diet! Are we stuffing ourselves with anything and everything, simply because "it tastes good"? Do we guzzle our fill of senseless concoctions, simply for the momentary re-

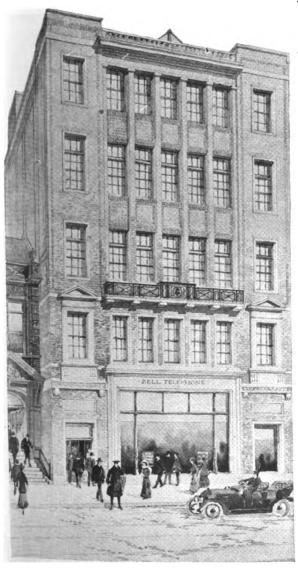
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lief they offer? Remember what Dr. Doty has told us of the ills these abuses inevitably result in.

And, looking ahead to the arduous days to come, how about the shorter but equally precious hours of relaxation which the fall and winter bring? What preconceived plan for recreation have you made? Is a Saturday afternoon or a holiday a mere excuse to loaf, or is it an opportunity to get outdoors with a fish-pole or a walking-stick, a pair of skates or a bob-sled? Does each such breathing space meanto you—an opportunity to stop the hands of the clock till the office door is again unlocked, or does it represent a pool of precious opportunity for self-improvement and self-protection?

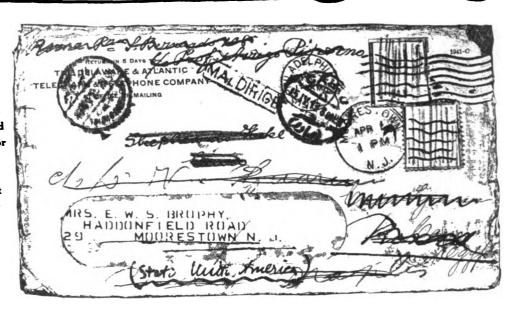
Remember, as you protect yourself so do you protect the service; remember, too, that this the public expects and The problem can be solved, demands. solved easily; but, like any other problem whose solution is worth while, it takes an ounce of planning and a pound of perseverance.





Proposed Building for Trenton, N. J. (See page 2)

Envelope of a Subscriber's **Bill Returned** to the Auditor by the Post Office Department After Long European Hunt



hiladelphia Division-D.J.CLEARY, Division Correspond

This Philadelphia Division column has now been firmly established and the newly appointed correspondents have entered into the work with a vim. In their quest for news items these district correspondents will visit from time to time the following offices in and around the city: Chester District, H. Mathews; Germantown District, F. R. King; Philadelphia, W. Bradford, J. J. Owens and J. E. Chambers.

1230 Arch, Business Division

A story is told of an incident that actually occurred at the West Philadelphia office. A subscriber with a suspicious-looking bundle under his arm called at the office and after explaining that his telephone was out of order and 'could not talk," opened the package and produced the instrument, requesting the clerk to exchange it for one that could "answer back."

The following is an extract of a letter now in our files:

"May I thank you for the courtesy and consideration shown by your men who did the work, as they worked very quickly and very quietly, a great comfort and relief under the circumstances existing at the time the work was done."

The men responsible for this work were: James McCloskey, Surveyor; L. Kloss, Installer; and G. Mitchell, assignment clerk, of the Middle Foreman's office.

Results on 123 suggestion slips, of a total of 202 forwarded, were obtained by the Commercial Department in Philadelphia during June. The Plant sent 77 and the Traffic 46 of the successful The total revenue obtained was \$2226 from the Plant and \$1436 from the Traffic assistance. In eight months 916 stations and \$25,581 worth of revenue have been obtained in this division by this plan!

A subscriber was recently making a long-distance call to Washington, D. C. Her small boy, aged three, was romping around making a considerable amount of noise. The mother impatiently turned to him and asked him to be quiet, explaining that she was talking to Washington. At the end of the conversation the little fellow with an accusing look on his face said, "Mother, you told me Washington was dead.' BRADFORD.

Germantown District

Three new men have been added to our sales force and one man transferred from the Central District because of the acquisition to our territory on July 1 of that part of Philadelphia known as the Eastern Zone, which includes Frankford, Bustleton, Fox Chase, Torresdale, Holmesburg, Tacony and Somerton.

We now have 15 men covering the Germantown-Suburban Districts.

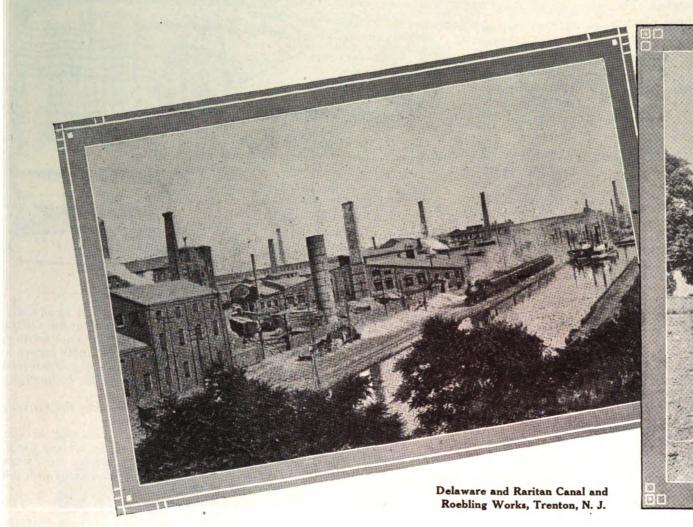
"The Flying Squadron," consisting of four men under the direction of Supervisor Fetter, have been systematically canvassing the Eastern Zone and securing a goodly number of new subscribers.

Recently a Manayunk subscriber requested connection to a party of whom we had no record. The subscriber was so informed, but vigorously insisted that the party did have service and tried several times during the afternoon to get the connection. The next day, however, the subscriber called the chief operator, apologized for his conduct, and stated that on calling at the party's home he had mistaken a green cord attached to an electric drop light for a telephone cord. The party called was afterwards interviewed by our solicitor and signed an application for service.

"Information" at Manayunk recently received an "emergency call" from a woman visiting in the city as to the location of the nearest dentist, as she had a severe toothache. The information was gladly given and the woman called later expressing her appreciation.

Frequently notes are enclosed with checks sent by subscribers which are more or less extraneous, but the limit was reached when one subscriber enclosed a slip with "Votes for Women" printed in large letters.

The business secured for June through the suggestion slips turned in by the Plant and Traffic Department employees amounted to \$951. Credit is due the following for their good work: Regina J. Creeden, Leonia Rice, Sara Flaherty, Margaret M. Koons, F. W. Norbury, L. McK. Bryan and H. J. Paulus of the Traffic Department, and C. W. Rich, C. W. Brooks, T. J. Barry, Jr., W. Wade, J. V. Donohue, E. S. Davison, F. Helmick, Wm. Rahn, J. J. Connolly, W. P. Rosenberg, H. F. Rodd, H. S. Smith, D. Haley, C. S. Idell, W. H. Buchanan, H. T. Boyer and D. W. Laughlin of the Plant Department.





(Continued from page 4)

The city and state are now combining to build another park along the river front. The State House has always looked out on unsightly waste ground, and it is here that a half-mile concrete wall has been built to hold back the river, and the level of the ground is being raised. boulevard has been surveyed to extend from this park, through the Delaware Water Gap, to Port Jervis.

Along one side of this park runs the old water power that in the days of water-wheels played such an important part in local development. While as a water power it is now abandoned and is used chiefly by pleasure boats, still it is a testimony of the enterprise of the past when they were willing to go to great expense and much labor to obtain results.

Trenton is now awake to the possibilities of the river and is taking every advantage of them. The new Delaware River channel, 12 feet deep and 200 feet wide, that was completed last May, will have a noticeable effect upon the growth of the city, for it will practically make Trenton a seaport city. Modern municipal docks are to be constructed and negotiations are already under way for the purchase of land for this purpose; and it is but a question of a short time before Trenton will be equipped with modern water shipping facilities.

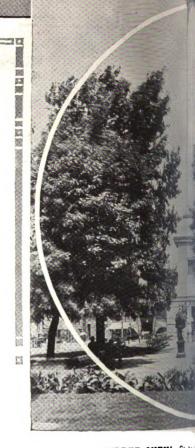
But if there is one thing that has aided Trenton's industrial growth more than anything else, it is probably the Delaware and Raritan Canal. While Trenton always had good rail transporta-

tion facilities in the form of two trunk lines of railroad, still the canal has always been of the greatest importance. This old canal, passing east and west through the center of the city, is always filled with barges and steamers carrying immense quantities of freight to and from the large factories along its banks and the great commercial centers of New York and Philadelphia. Times are changing, however, and the old Delaware and Raritan Canal will soon have to give way to a better water-course. The route of the old canal is such as to make its modernization impracticable and is therefore no longer available for improvement as a waterway. Consequently this canal, that has so long been closely connected with Trenton's development, will be replaced by the New Jersey Ship Canal. This project will connect the Delaware River with New York Bay, by way of Raritan Bay and the Staten Island

Industrial Trenton

If it should ever happen that Trenton should cease to be the capital of New Jersey it would still appear on the map in rather heavy type, for Trenton is a noted industrial center, with the highest standing in several lines of manufacture.

In the main legislative chamber of the Municipal Building there is a large painting extending across the front of the room. This is probably the only mural painting in existence that shows figures puffing on cigarettes and clay pipes; but this is more than a wall covering, it depicts the very life of this city of one hundred thousand people. For here are painted men working in the pottery, iron and rubber industries. It is these three that have placed Trenton in the first rank as a manufacturing city.



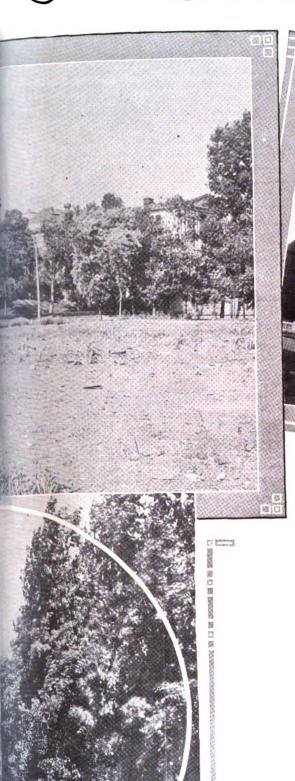
UPPER VIEW-State LOWER VIEW-

Industrially Trenton has long had an honorable history. Before 1850 most of the great interests which have made Trenton famous were represented here, some dating from the pre-Revolutionary period. Flour mills and iron workssteel was made in Trenton among the first places in the country—were the progenitors of the pres-Digitized by









Aug. 1

itol and Site of New Park ton Battle Monument

ent great cracker business and metal manufacturing plants. The clay industry-producing the delicate Beleek and the rough terra-cotta and bricks—has a family tree going back through two

Nowhere to-day is there a city that can compare with Trenton in the producing of pottery ware. There are forty-eight Trenton establishments engaged in manufacturing these pottery products, not only china and crockery, but everything from bath-tubs to drain pipes.

New Municipal Building, Trenton, N. J.

The rubber industry is also made up of many small plants making a great variety of products. Rubber, of course, is a modern innovation, and this industry, when compared with the surrounding plants in Trenton, is still in short trousers. Nevertheless it is said that twenty rubber works here have sales approximately \$10,000,000 each year.

Closely associated as are the names Rome and Caesar, France and Napoleon, England and Pankhurst, so likewise are the names Trenton and Roebling. In fact, the great works of John A. Roebling's are of more than national reputation and have been heard of in parts of the world where Trenton was hitherto unknown. For the manufacturing of wire and cable they employ over 5000 persons and their works cover a good thirty acres. What is now the office of the company was originally the home that the United States Government presented to John A. Roebling in appreciation of his services in designing the Brooklyn Bridge. Unfortunately while making a survey for this structure he was injured and died a few days later. This bridge, the largest in the world at the time, was then carried to completion by his son, and is now a monument to the genius of the Roeblings.

It is worth noting that the first private branch exchange in Trenton was located at the Roebling works. In fact, there has always been a close connection existing between the telephone and Roebling's. At the World's Fair, back in 1892. the souvenir of the Roebling exhibit was a flattened copper wire stamped with the following: "When you walk from New York to Brooklyn and when you talk from New York to Chicago, you use Roebling's product.'

The individual plant next in importance and size to Roebling's is the Jordan L. Mott Iron Works, the largest of its kind in the country. Probably the biggest compliment that industrial Trenton ever received was paid when this great corporation selected Trenton over all other competing locations when the decision was reached to move its works from Mott Haven, N. Y.

Other notable establishments located here are the American Bridge Company, De Laval Steam Turbine Works, Ingersoll Watch plant and the Trenton Iron Company. This leaves unmentioned about fifty different industries, comprising over 150 concerns—"some" manufacturing city! And the best part of it is that, of all these plants, practically every one has a P.B.X.

Everywhere you go can be seen either large iron and steel works, woolen mills, machine shops, foundries or oil-cloth and linoleum factories. Establishments on every side employ hundreds, and in some instances thousands, of skilled workmen. It is said that in these and many other plants of diversified interests there are over twenty-five thousand competent employees, and somebody has figured that these varied industries represent a payroll that would bankrupt a millionaire every month.

From these few facts it will be seen that the later history of Trenton is largely the record of commercial development and of steady growth. Owing to its advantageous location upon the lines of two large railways, with its present and proposed canals and its position at the head of tidal navigation, Trenton is destined to advance even more rapidly as an industrial center. And with the progressive spirit that is showing itself on all sides there can be no doubt that Trenton has been given a decided impulse.

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Allentown District

Harry Franklin Schaffer, former Plant Chief at Allentown, died July 13. Mr. Schaffer was connected with this Company for a period of nearly twenty years, having started as a groundman, later becoming a lineman, and finally acting as Wire Chief at Bethlehem for an uninterrupted period of thirteen years. In 1909 he became Plant Chief at Allentown and ably filled this position until he became ill about a year ago.

In respect to his memory, a resolution was adopted by his fellow workmen in Allentown District.

Mr. O. P. Stecker, a farmer receiving rural line service from the North Bell Telephone Company connected on the Bethlehem exchange, called at the Bethlehem Commercial office several days ago and stated that during the past two years he has sold all of his truck, grain and live stock by telephone.

Last month the graduating class of the Bethlehem High School, fifty-two in number, were conducted through the Bethlehem office. The chief operator, Miss Prendergast, explained the method of operating and Wire Chief Miller clearly showed the relation of the terminal room to the telephone. After the trip through the building the students were invited to the business office where Local Manager Howard gave a short talk on the value of the telephone and its relations to the business world.

Each public school building in Bethlehem is equipped with Bell service, and in the fall of 1912 Superintendent Sampson issued instructions to the principal of each building to have students answer all telephone calls, and in this way a great many boys and girls who were not familiar

with the use of the telephone were given practical knowledge. WOLF.

Altoona District

An unusual condition recently existed at Altoona when the Manager of the Telephone Company as Manager of the Western Union Company contracted with the Traffic Supervisor of the Telephone Company for the delivery of his directories. The contract proved to be an unusually good one for the Telephone Company, as the directories were distributed in shorter space of time than ever before, and the number of calls by the subscribers who did not receive directories has been the smallest ever known in Altoona.

A package recently delivered by a Tyrone druggist to a local nurse was sealed with a Blue Bell sticker. She later asked the clerk, "Are you agents for the Bell Company?" She has now replaced her opposition teiephone with our service.

A produce salesman, who was advised by telegraph of a drop in the price of potatoes, "used the Bell" from Ridgway to his customers in near-by towns and sold a hundred barrels of potatoes in less than fifteen minutes. He said that he figured the cost of selling them at less than half a cent per barrel.

Harrisburg District

In this district suggestion slips were forwarded in June by F. Tyler, E. H. Bitner and Miss R. Addams at Harrisburg, W. J. Diehl, J. Dysert and D. C. Wolfe at Carlisle, Mrs. S. S. Farver, T. Powl and E. H. Weaver at Lancaster, J. W. Laubs at Waynesboro and C. K. Hartzell at York.

A new multiparty line connecting twelve subscribers at White Pine Sanitarium, Mont Alto, with the Waynesboro exchange is about completed. White Pine Sanitarium is situated on one of the highest points of the Blue Ridge Mountains, in Franklin County, and is a veri-

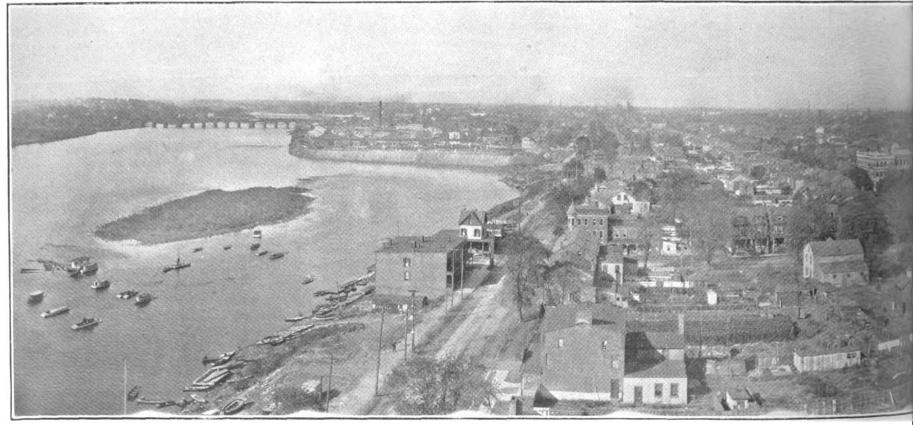
table city of cottages with a population of over 1000. Twenty of the main buildings are connected by a Bell private branch exchange. It has cost the state of Pennsylvania several millions of dollars to make White Pine Sanitarium one of the most complete in the country, and it is here the state owns about 30,000 acres of mountain land and conducts one of its leading forestry schools at Mont Alto Park, a few miles down the mountain. Three thousand acres of this preserve are enclosed with wire to protect hundreds of deer, which are becoming very numerous.

As a result of the efforts of Salesman Wolfe, the A. B. Farquhar Company, Inc., York, resigned from one individual line with 2 extension stations to No. 1 P.B.X. with 2 trunks, 23 stations and 18 extension bells, making an increase in revenue of \$256.40.

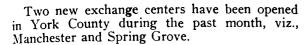
The Schmidt & Ault Paper Company, York, re-signed from one individual line with 2 extension stations to monitor switchboard with 1 trunk, 4 stations and 1 extension bell with mileage. This was due to the work of Salesman Strayer.

Blue Ridge Summit exchange, in Franklin County, has had an increase of about twenty-five subscribers thus far this season, nearly doubling the number for the same period last year. Many foreign dignitaries as well as Governors, United States Senators and other prominent men of our country spend the summer at Buena Vista, Blue Mountain House, Monterey, and the numerous other summer resorts, all of which are connected by long-distance service.

The Atlantic Refining Company at Harrisburg has re-signed from one individual line with extension bell to cordless monitor board with 1 trunk and 3 stations. In addition to the above, Local Manager Watts has also secured an application from the Stanley Hotel, Harrisburg, for a No. 1 P.B.X. with 2 trunks and 20 stations.







Local Manager Smith at Lancaster has been securing quite a number of applications recently for increased stations, notably that of the Star Ball Retainer Company.

Reading District

The prompt action of Miss Laura Shaffer during a large fire near Host has been highly commended locally, both by the citizens and newspapers. When the flames were discovered, Miss Shaffer, the operator at our Host exchange, displayed great presence of mind in summoning aid. She coolly telephoned to the different subscribers within a radius of several miles, asking for help.

As a result, within a very short time a volunteer bucket brigade was carrying water to the burning house. The fire nevertheless spread so rapidly that the efforts to extinguish the blaze were in vain. However, a near-by building was saved and the fire was held in check due to the splendid work of Miss Shaffer.

Scranton District

The United States Army camp is now located at Tobyhanna, Pa., where they will be equipped with a public telephone served from our Mt. Pocono exchange. The army camp will furnish and set thirty poles to get this service. This station should be a good revenue-producer, as it will get the business in both directions; the camp will get most of the supplies from Scranton merchants, and it will be necessary for these merchants to call the camp daily in order to supply their wants; while the officers and their men will keep in touch with their homes through this public station. SMITHING.

Williamsport District

Mr. Frank A. Eyer, Manager of the Middlecreek Valley Telephone Company, a connecting company, has extended his line and is now furnishing service to prospective subscribers in the

vicinity of Rolling Green Park, located between Selingsgrove and Shamokin Dam. Mr. Eyer has also received applications for service from a number of summer homes, bungalows and country clubs.

The West Branch Bell Telephone Company of Muncy, a connecting company, with the help of C. A. Anstadt, our Williamsport salesman, in ten days signed 125 applications for new service to be installed in the White Deer Valley. This company expects to have 300 stations working in this territory within the next three months.

Ho for Thrift!

Manayunk, Pa., June 17. (Special correspondence.) The telephone chain is the newest endless chain scheme on the market. It was invented by one Jack Springer. The size of Jack's hats has increased about one-half inch this week, for, be it known, he is the proud father of a pair of lusty

Everyone has at least one rich uncle in the family and J. Springer is no exception to the rule. He wanted to let this Uncle Midas know about it the minute the happy event occurred. But the uncle lives in Reading. The mails would be too slow. Besides, he wanted the twin news to reach the uncle in a quicker, bolder, more startling fashion. The telephone would be the thing, he thought, but he was strapped, as a man is apt to be at such times. An increase in family means a decrease in cash on hand.

So he bethought himself of a scheme worthy of a frenzied financier. He had relatives in nearly every town along the Schuylkill Valley-uncles, aunts, cousins, second cousins and forty-second cousins; also some in-laws. For them he did not care enough to spend a buffalo nickel to notify them of his enlarged family, but they could help in his plan, he thought.

So this is what he did: He telephoned to Aunt Hilda at Norristown,—cost, ten cents. This was his message:

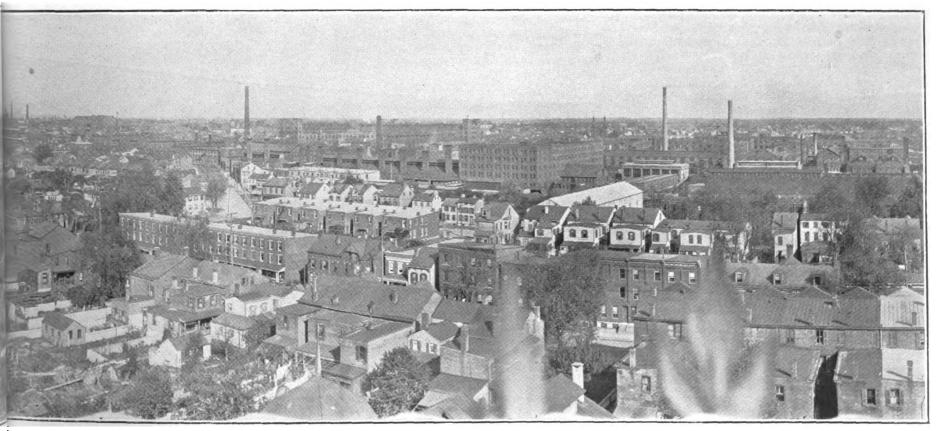
"Aunt Hilda, guten morgen. Wie befinden sie

sich?—Ach ja, so simlich.—Ja, Aunt Hilda, it was two—two boys. (Business of congratula-tions, etc.) Aunt Hilda, will you please do this for me? Call our cousin George Mahn, who has the butcher shop at Norristown, tell him and ask him to call my brother Harry at the bridge works in Phoenixville. Then Harry can call Elizabeth's sister in Pottstown; you know, the one who has the dry goods store on Main Street. Her name is Jennie—Mrs. Jennie Pfoosnacht.—Ja, that is the one.—Then she will call Uncle Ben Whitman at Birdsboro. Yes, the pay station is at the corner next to his place. Tell them to tell him I will send him ten cents by next mail if he will call Uncle Midas at his candy factory at Reading and tell him there are two boys and each one is named Midas. The first one A. Midas, born at 2:15, and the second one B. Midas, born at 2:30. You see, if he doesn't show his pleasure by sending his namesakes a keepsake, we can just call them plain Alfred and Benjamin. Now, you'll remember all that, won't you, Aunt Hilda? Danka, auf wiedersehen."

The Telephone on the Stage

Our Company has been receiving lots of publicity lately from the production of a play entitled "The Woman." Some idea of the amount Some idea of the amount of this may be gained from the fact that among the stage property for the first act is included a P.B.X. switchboard, three booths with style signs, a style A sign on the pillar and Blue Bell shades on the lights in the booths. The programs also contain the following announcement: " switchboard and telephone equipment used in this play by courtesy of The Bell Telephone Company of Pennsylvania."

This Belasco play is a very popular one and consequently has been "drawing large houses" in its numerous stops throughout this section of the country; 15,000 people saw the play in Wilkes-Barre alone. A great amount of favorable publicity has thus been secured for the telephone and our Company in particular.



Aug. 1

brations

I don't kar how much a man sez, if he tells it in a few words.-Josh Billings.

A single boat shipment of 2800 cedar poles from Everett, Wash., to San Pedro, Cal., was made by the Western Electric Company. This number would fill twenty-eight freight cars.

"If pleasures are greatest in anticipation, just remember that this is true also of trouble."

A contemporary rises to remark that a recent system of tests shows that the average time required to get into telephonic communication in Paris is 1 minute and 20.8 seconds, or seven and a half times as long as it takes in this country.

> When a bit of sunshine hits ye, After passin' off a cloud, When a fit of laughter gits ye An' yer spine is feelin' proud, Don't fergit to up an' fling it At a soul that's feelin' blue, Fer the minit that ye sling it It's a boomerang to you.

> > -Capt. Jack Crawford.

Dartmouth's commencement came late, but lost nothing in interest by delay. The proceedings were interesting and the college showed appreciation of services and abilities in the men chosen as recipients of its honorary degrees. Foremost among them was Dr. Alexander Graham Bell.

There sometimes wants only a stroke of fortune to discover numberless latent good or bad qualities, which would otherwise have been eternally concealed: as words written with a certain liquid appear only when applied to the fire.—Greville.

The Western Union Telegraph Company has inaugurated a Stationery Committee in New York for the purpose of standardizing stationery forms, stationery supplies and office furniture and equipment for clerical use. Commercial, Plant, Traffic, Accounting and Western Electric representatives are on this committee, and what it accomplishes will be outlined in the Journal of the Telegraph, published by that Company in New York.

The intellect of man sits enthroned visibly upon his forehead and in his eye, and the heart of man is written on his countenance, but the soul reveals itself in the voice only.—Longfellow.

The Ohio Legislature has voted to appropriate \$100 for the purchase of gold medals commemorative of the heroism displayed by J. A. Bell and Thomas E. Green during the spring floods. Bell is district Plant chief at Dayton and Green wire chief at Columbus. Governor Cox recommended the bestowal of the medals and paid high tribute to the telephone workers in general for their brave service in time of peril and disaster.

No enjoyment, however inconsiderable, is confined to the present moment. A man is the happier for life from having made once an agreeable tour, or lived for any length of time with pleasant people, or enjoyed any considerable interval of innocent pleasure.—Sidney Smith.

A recent tally shows the approximate telephone development of this and other countries in part as follows: United States, 7,600,000; Germany, 1,000,000; Great Britain, 650,000; and France, 232,743. Supremacy with a capital S!

Joys are our wings, sorrows are our spurs.-Richter.

Long-distance heart examinations are now being made over telephone by physicians at Johns Hopkins Hospital, Baltimore, Md., by using a cardiograph, or heart-recording instrument.

Recreation is intended to the mind, as whetting is to the scythe, to sharpen the edge of it, which otherwise would grow dull and blunt. He, therefore, that spends his whole time in recreation is ever whetting, never mowing; his grass may grow and his steed starve: as, contrarily, he that always toils and never recreates is ever mowing, never whetting; laboring much to little purpose. As good no scythe as no edge. Then only doth the work go forward when the scythe is so seasonably and moderately whetted that it may cut, and so cut that it may have the help of sharpening. -Bishop Hall.

The Chicago Telephone Company, through the adoption of a four-column arrangement for alphabetical listing pages, has reduced the size of its directory from fourteen hundred to twelve hundred pages. This directory, containing both alphabetical and classified business sections, is the largest in the world.

Dignity is not valuable until you forget that you have it.—Elbert Hubbard.

On July 4 a tablet was placed in the wall of the former Post Office building at Washington, D. C., to mark the site of the first public telegraph office.

Happiness is much more equally divided than some of us imagine. One man shall possess most of the materials, but little of the thing; another may possess much of the thing, but very few of the materials.-

System for July contained an illustrated eightpage article by J. D. Newman, editor of The Telephone Review, on "Telephone Short-Cuts to Results.'

"The Hand that Rocks the Cradle" has been sung in

The hand that clips the coupons is another handy hand; The hand that holds four aces you may play for all it's worth;

But the hand that plugs the switchboard is the hand that runs the earth.

-The Monthly Bulletin.

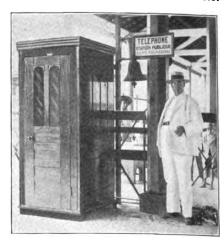
In the tallest of the New York cloud-rippers, the Woolworth Building, there is an elevator telephone system installed. It provides for the starter as perfect control of his elevator boys as if they all stayed on the first floor instead of rising with their cages to the dizzy heights of the thirty-fifth or fortieth story.

The telephones in each elevator have a loudspeaking receiver. The starter watches his electric indicator, which shows the movements of each car, and gives orders accordingly. chance is here for an elevator man to loiter at the top while waiting for some other fellow to take the load.

Difficulties afford heroism its opportunities; blessed be difficulty.—Business Philosopher.

A Real Bell Sign

Although this photograph was sent to the Western Electric News from Tahiti, one of the South Sea Islands, there is very little local color con-



veyed except in the wording of the telephone sign. The booth is located in the public market of Papeete, and the bell is not our familiar trademark, but is used to open the market each morning at four o'clock.

The Borrowed Telephone*

Commercial Department, Take Notice!

First Time-"Oh, Mrs. Smith, I'm dreadfully sorry to trouble you, but would you be so kind as to let me use your telephone for half a minute? I should consider it such a favor. I simply must get word to my grocer at once and I can't leave the house because I've a cake in the oven, and— Oh, thank you so much! I think it is perfectly sweet of you to be so kind and neighborly. Thank you again!"

Fifth Time—"May I please use your telephone for just a minute, Mrs. Smith? I'm sorry to keep troubling you this way, but— Thank you

very much! It's very kind of you, I'm sure."

Tenth Time—"May I use your telephone again,
Mrs. Smith? Thank you. Beautiful weather,

Twentieth Time—"Just want to use your telephone a second, Mrs. Smith. And I'm going to ask someone to call me up on it a little later in the day. You won't mind coming over and telling me when they do, will you? Thanks.'

Fiftieth Time—"I just came over to telephone. Mrs. Smith. You haven't got the telephone in a very convenient place, have you? It's so dark there you can scarcely see the numbers in the book. I should think you would like it nearer to the window. Queer weather, isn't it?"

Fifty-first Time—"I'd like to telephone, Mrs. Smith. What? Well, I declare! You think I ought to help pay for the telephone? So that's the way you feel about doing your neighbor a favor, is it? Well, I never heard the beat of that! Of course, I thought you were perfectly willing or I'd never have asked to use it. Well, I never! I don't want to use your old telephone. Mrs. Smith. I wouldn't use it for a million dollars after that and what's more I'll never step foot in this house again, and don't you come near mine, and I wouldn't be so mean and stingy for worlds and I'll have one of my own put in and wait till you want to borrow it and then you'll see. and— Oh, you needn't stand there holding the door open—I'm going just as fast as I can, believe me! Good day!"—Puck.

*Mailed to our Company by a Pittsburgh subscriber who had been annoyed by the practice.



THE TELEPHONE NEWS







Atlantic Coast Division~ J.R.ANDERSON, Division Correspondent

Atlantic District

The following call was received by the Atlantic City long-distance operator: "The party I desire to speak to in Ocean City is an expressman; lives in the back street; his wife keeps a boarding house where the railroad tracks run not far from the bank; has two children—one is dead. Stands outside the bank with canopy wagon and two horses. Is inclined to be redheaded; also drives the people around Ocean City on sight-seeing; lives over near the mill." With this description the party was connected in two minutes.

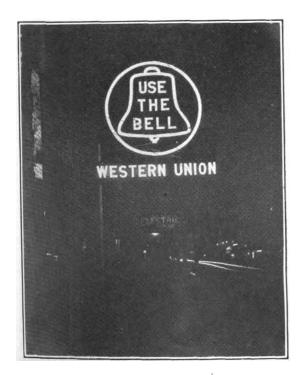
Camden District

At a recent luncheon of the Rotary Club of Camden, C. B. Wriggins read a ten-minute paper entitled "A Little Bit About the Telephone."

A new subscriber in Delanco admitted to our salesman that he now feels he has lost many times the annual rate for service in past years. His telephone had been in working order only thirty minutes when he received an order for five quarts of ice cream. WRIGGINS.

Dover Sub-District

One of the checks received at the business office of the Telephone Company in Dover, Del., during June bore a novel but quite effective protection mark for the figures at the right-hand end of the check. What at first appeared to be a blur on closer examination proved to be a perfect impression of a thumb-mark in green ink which showed the lines of the thumb most distinctly in the same manner as prescribed in the Bertillon system of identification. It is understood that a facsimile of this thumb-mark is on file with the subscriber's signature in his local bank, which affords perfect protection in cases of any forged checks.



The above night view of Federal Street, Camden, shows why this new electric sign, which is nine feet square, is considered one of the most attractive in the city.

Doylestown Sub-District

On July 12 fire was discovered in the residence of one of the rural subscribers connected with our New Hope exchange. Although the telephone was practically surrounded by flames, the subscriber tore the instrument from the wall and rushed outside and connected it on the line. He then called the fire department at New Hope and several neighbors, who rushed to the scene. Although the residence burned down, they succeeded in saving much of the valuable furnishings and several outbuildings and the barn. Among these furnishing were included a number of very valuable antiques.

Trenton District

A telephone reported O.D. when tested showed a line ground. Trouble was cleared by removing a caterpillar from the inside of a No. 10 stand.

The factory of the Woven Steel Hose and Rubber Company was destroyed by fire on July 2. The alarm was turned in at 5:17 A.M., and by 6:20 a Plant man was on the ground and new service was O.K.ed at 8:20 in the temporary office.

A Trenton applicant for service referred us to another company. The following day the salesman reported that our prospective subscriber was in jail charged with passing bad checks.

Mr. Flock, the supervising salesman in Trenton, who has been trying for some time to secure an application for a P.B.X. from this subscriber, called on the vice-president of the firm and learned that temporarily they would have their office in one building across the street from the burned factory and would have two other telephones located in sheds on the burned site. Mr. Flock pointed out the saving of time running between these stations if they had a monitor and secured the desired application. GARWOOD.

West Chester District

Counterfeit nickels have been put into circulation in West Chester, several hundred having found a home in some feeble slot machines; but we have failed to find one in our collections from automatic pay stations during July.

GREEN FIELD.

Wilmington District

An automobile parade inaugurated the Firemen's Carnival held in Newark, Del. Our trucks were working in the vicinity and at seventhirty in the evening the company was represented by two trucks, a delivery car and three runabouts. Fans were distributed along the route of the parade, and the local papers commented very favorably on our inclination to be ever ready to boost.

Salesman Hanly sold a private branch exchange to the *Morning News*, superseding two direct lines and extension sets.

A man whose place of business overlooks the Company's storeyard noticed two men acting rather suspiciously and a telephone message to the central office soon had Construction Foreman Dockety and Storekeeper Way in pursuit. The men, seeing they were pursued, dropped a coil of one hundred pounds of cable, but were soon overtaken and, after a desperate struggle, placed in the police station. At a hearing they were held under \$300 bail for court.

Replacing of a Defective Cable Section and a New Emergency Cable

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By James Cunningham, Supervisor of Construction, Philadelphia

MONG comparatively recent developments in the telephone art, none have had a more far-reaching effect than those which relate to the improvements in transmission through cables. The Pupin coil, duplex cables, etc., and improvements in their manufacture, have enabled our Companies to replace their open-wire toll leads with cables for great distances.

It is important that these cables be maintained in a highly operative condition. It is equally important, in case of their failure, to restore such service at the earliest possible moment. Since the structure of these cables renders the passage of water through the core easy, once it has gained access inside of the sheath, owing to defects in workmanship, damage to sheath, etc., it frequently happens that a failure means the replacement of one or more sections. Whether new cable will be needed for such replacements cannot be known until the cable gangs have arrived on the job and made an investigation. The usual procedure, upon the failure of an important cable -particularly if the trouble is some distance from a source of supplies—has been to haul a reel or reels of cable to the job. If not required it was returned. This method is expensive and the handling of the cable does it no good. If this plan were not followed and it was found that cable was required, there resulted a considerable delay in restoring service.

It was thought that if a cable were made up that would stand considerable handling without injury, it would be advantageous for use in an emergency to restore service while awaiting the permanent lead-sheathed cable. Accordingly a 75-pair "okonite" cable, 1300 feet long, was ordered. Each conductor of this cable consists of three strands and is equivalent to a 19-gauge wire. Then arose the question of devising some

(Continued on page 14)

Delaware's Telephone Growth

Within three years 3300 new telephones have been installed in the Diamond State, or an average of 1100 a year. Over \$175,000 has been expended in connecting them and in additions to plant, including rebuilding, underground extensions and central office equipment.

The growth in Smyrna, Selbyville and Middletown has been 100 per cent. during that same period, and in Lewes, Newark, New Castle, Milford and Hockessin, as well as the state capital, the gain has been 50 per cent. Wilmington added 1700 stations, while Hockessin and Newark show 17 and 12 per cent. development respectively. The state's development percentage is approximately 7.

Since January 1, 1913, four new exchanges have been approved and are in operation—Holly Oak, lately described in our paper, Felton, Frederica and Millsboro.

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method by which this emergency cable could be quickly and easily spliced into the working cable and as readily disconnected. The ordinary scheme of twisting or "pigtailing" was objectionable, as it was not only slow but would also result in a gradual shortening of the emergency cable. To overcome these objections a special connector was desired. Several schemes were proposed and the connector devised by one of the employees in the office of the Supervisor of Construction was finally adopted.

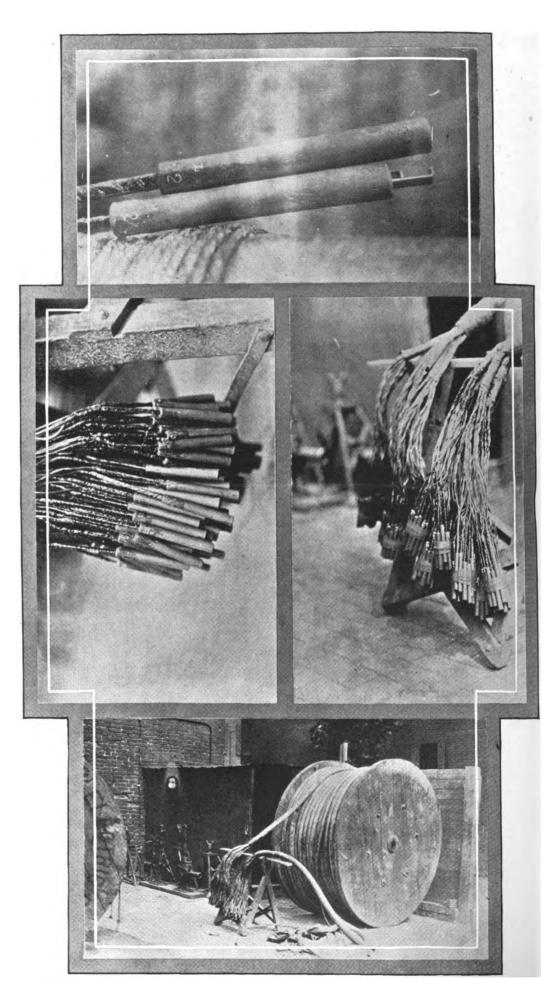
It consists essentially of a pair of jaws of spring brass which are so assembled that there is a tendency for them to spread apart. A fiber sleeve with a taper bore slips over these jaws, one end of which is soldered to the okonite cable conductor. Connection between a conductor of the emergency cable and one of any other cable is quickly established by slipping back the fiber sleeve, introducing the desired wire between the jaws, and drawing up the fiber sleeve. The tapered bore of the latter causes the jaws to come together, tightly gripping the conductor placed between them. Disconnection is accomplished by reversing these movements.

As a cable is ordinarily placed on a reel, it is necessary to unreel it entirely in order to make use of it without cutting. That both ends of the emergency cable may be accessible and only the actual amount of cable necessary to span the defective section need be unreeled, this cable was doubled before being placed on the reel; that is, the middle of the section, instead of one end, was fastened to the drum of the reel. This plan left both ends on the outside layer. As the cable, placed in this way, is unreeled, both ends pay out an equal amount. If the reel be placed halfway between the two points to be joined, both of them will be reached by the ends of the emergency cable at the same time, and only the amount necessary to accomplish this will have been taken off the reel.

In "forming up" the ends, the first step was to group the pairs in twos or quads. This was done, as many of the cables, on which this emergency cable may be used, are duplexed. Then second groups of ten pairs or five quads were made. As the cable consists of seventy-five pairs, this arrangement resulted in one five-pair and seven ten-pair groups. Each conductor was equipped with one of the special connectors. The fiber sleeves of the latter were stenciled so that not only were the pairs, but the two sides of each pair distinguished from each other. For example, the connectors on the first pair were stenciled "1 L" and "1 M" respectively. The numbers ran from 1 to 75. Each quad consists of two pairs in sequence; i.e., pairs 1 and 2 form a quad, as do pairs 3 and 4, 5 and 6, 7 and 8, etc. Each group of ten pairs was marked with a copper tag stamped to show the numbers of the pairs forming that group and the five-pair group; the last five pairs were similarly designated.

The exposed metal parts of the connectors were taped and pointed with insulating paint. The pairs forming the quads were taped together, as were those forming the large groups. The edges of the outer webbing were also taped and sewed with marline. Both ends of the cable were finished alike. When not in use this cable will be stored at 1820 Filbert Street, Philadelphia, on a platform, so that it can be readily loaded on a truck. The ends, when the cable is not in use, will be wrapped in canvas and covered with rubber blankets.

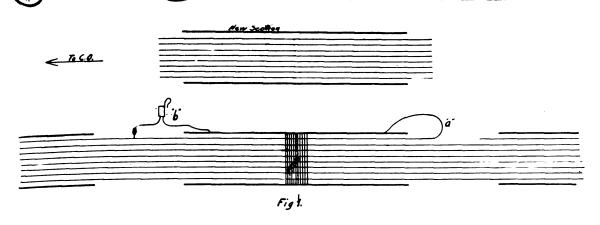
In this connection it might prove interesting to give a description of the methods used in replacing defective sections. The following remarks refer to the replacing of a lead cable section with a similar cable. But in emergencies



UPPER: One Pair of Connectors. LEFT CENTER: One End of Cable Before Grouping RIGHT CENTER: End of Cable Made up in Groups of Five Quads or Ten Pairs LOWER: Emergency Reel







the cable just described would be rushed to the job and used while awaiting the delivery of the permanent cable. The method of cutting it in would be the same as described, but as it is already tested and tagged, there would be no delay in restoring service due to testing out a new sec-

Aug. l

When the defect or damage to the cable sheath resulting in a cable failure is located in a section between two manholes, service is restored by pulling in a new section of cable and transferring the pairs from the damaged to the new cable.

There are two ways of doing this, depending upon the nature of the trouble. One of these methods has been_displaced by the new scheme to be described. Before entering into a description of this method the original procedures will be discussed.

I. When the trouble is very light or when the entire cable has not yet been affected. method is still used.

II. When the entire cable has failed and the trouble is heavy. The original method has been replaced by the new scheme.

1. Light Trouble.—When the trouble is so light that it will not affect the passage of the tone, or so that the tone on a pair may be distinguished readily from the small amount of tone which finds its way to other pairs through the trouble, the tone is used in throwing the pairs from the bad to the good section.

The procedure is as follows:

- (a) The new section is tested out with a head telephone and dry cell and the pairs boarded or tagged at each end.
- (b) The man at one splice opens a pair on the outside layer of the cable in trouble and puts the tone on it.
- (c) The man at the other end of the section tries out each pair on the outside layer with a head telephone until he finds the pair with the
- (d) This pair is then cut and the ends away from the bad section at each splice are spliced to the pair marked or boarded No. 1 in the new section.

the tone on the pair next to the first pair tested on the ouside layer of the defective cable. This pair is easily found by the second man, as it is adjacent to the pair first picked up. This pair is cut and spliced as before to pair No. 2 of the new section.

(f) When one layer has been transferred, the first pair of the next layer is found and thrown over and the process continued until all pairs are working through the new section.

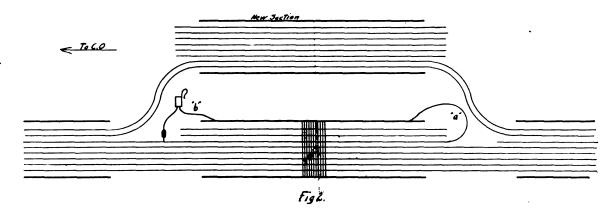
This method requires the services of six menthree at each manhole—a man "putting on" or 'picking up" the tone, a man splicing, and one guarding the hole.

correspond with the count of these terminals.

(e) The two tests having been completed, the pairs were spliced up, the pair marked No. 1 towards the central office being spliced to the correspondingly marked pair in the other end of the

This method was extremely slow. The test towards the central office did not require much time, but the test towards the terminals was very slow, as a sufficient number of terminals to cover the whole cable had to be visited. If the cable affected was a 330-pair, at least six 55-pair terminals had to be found to complete the test. As the multiples of such terminals overlapped each other considerably, the number of terminals necessary to cover the whole of a 330-pair count would average about ten. The distances between terminals, the difficulties and troubles encountered due to transposed and open pairs, etc., made the time of O.K.ing a cable under these circumstances at least 48 hours. If the cable in question had most of its terminals consisting of boxes of 26 pairs or less, the difficulties and time of completing the job were vastly increased. If the cable happened to be a toll or long-distance trunk, then the distance between the terminal offices and the trouble made testing, etc., slow.

The method just described has been replaced by the following scheme (this plan depends upon the



2 Heavy Trouble.-When the entire cable is affected and the resistance of the fault is so low that the tone either does not pass the trouble or is found equally strong on a number of pairs when placed on one, the following scheme was formerly used:

(a) The damaged section was cut out.(b) The new section was spliced to the cable towards the central office.

(c) A tone test was made between the central office and the end of the new section and the pairs tagged or boarded to correspond with the main distributing frame.

(d) A tone test-back test-was made between the end of the cable away from the bad section and the terminals beyond this point and the pairs (e) The first man above mentioned then places at the end of the cable tagged or boarded to

fact that when a cable has failed the pairs are more or less noisy):

(a) The new section is tested out as in No. 1.

(b) The splices at each end of the damaged section are opened and all bonds are removed so that the sheath of this section is isolated.

(c) A pair on the outside layer at the splice farthest from the office is opened and grounded on the sheath of the bad section (Fig. 1, "a").

(d) At the other splice the workman grounds one side of his head receiver on the sheath of the bad section (Fig. 1, "b") and tests each pair on the outside layer. Each pair that he tests will be noisy, except the one grounded at the other splice.

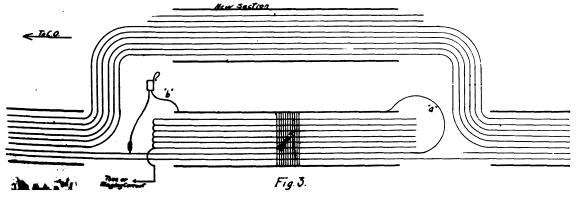
lice. This one will be quiet or test "dead."
(e) The pair testing "dead" is opened and spliced to pair No. 1 of the new section, as described in paragraph (d) under "Light Trouble."

(f) The procedure from this point on is the same as in (e) and (f) under "Light Trouble" (Fig. 2).

(g) As the lines are transferred from the bad to the good section, the noise on the pairs not thrown decreases owing to the large number of pairs which have been cut dead. To render the test quick and easy the noise can be increased, under such circumstances, by putting tone, ringing current, or some other disturbing current on a number of the dead pairs in the bad section (Fig. 3).

The number of men required on this test are

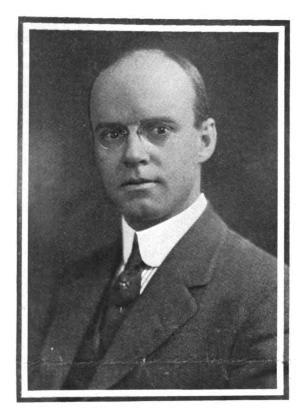
the same as for method No. 1.



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William W. Young

Effective July 28, the new office of Supervisor of Traffic has been established, and to that office has been appointed Mr. W. W. Young, heretofore Traffic Superintendent of the Philadelphia Division. The Supervisor of Traffic, as one of the immediate personal staff of the General Superintendent of Traffic, will assist the latter in the formulation and introduction of operating rou-



tines and practices, and will render personal assistance in carrying on the administrative work of the department. The Supervisor of Traffic will also have direct charge of the operation of all company-attended public telephones in the Philadelphia and Atlantic Coast Divisions, as well as traffic inspection, special investigation and private branch exchange inspection work in these two divisions.

Mr. Young is, by training, experience and conspicuous personal qualifications, particularly well equipped for successfully discharging the duties of this new office. Born at Philadelphia, on July 30, 1872, he attended the schools of that city, graduating from Central Manual, and after three years' employment with the electrical firm of Queen & Co., completed a three-years' special course at the University of Michigan in 1895. His previous interest in electrical instrument work prompted his entrance into the telephone field, and in 1895 he sought employment with The Bell Telephone Company of Philadelphia, in the Plant Department.

Two years later Mr. Young was transferred to the Traffic Department of the New York Telephone Company, but in 1898 returned to Philadelphia and, directly associated with Mr. W. R. Driver, Jr., inspected the operation of the old Market "transfer board," the first common-battery switchboard in Philadelphia and one of the very first in the country.

Advancing through the positions of Supervisor, Traffic Manager and District Traffic Manager, Mr. Young was appointed Division Superintendent of Traffic on January 1, 1911, which office he has held up to the time of his new appointment as Supervisor of Traffic.

The Harrisburg Outing

On Saturday afternoon, July 12, three special cars flying Blue Bell flags carried non-blue Bell Telephone employees with their families, decorated with Blue Bell bangle pins and carrying Blue Bell fans, to Hershey Park for the first Harrisburg employees' picnic. To say that everybody thoroughly enjoyed the occasion is putting it mildly, as the picnic was a big success in nearly every particular. This limiting phrase is used because rain interfered with part of the scheduled program but not with the enthusiasm.

As soon as the cars arrived at the park the committee in charge started things going. first event was the ball game between the Plant and the Accounting-Commercial Departments. The line-up looked very formidable, some of the players having hunted up the suits in which they "starred" years ago. Mr. L. H. Kinnard umpired at the bases and Plant Superintendent Porter called balls and strikes. The game was in progress but little more than one inning when a heavy rainstorm interfered and it had to be called off; however, during this short time the ball received a number of hard swats and the fielders made a number of beautiful errors. This one inning gave promise of a "big" game and large scores, for the Plant Department had made four runs and the Accounting-Commercial Department three runs when the rain interfered. The battery for the Plant Department was James Gaffney and S. E. Fitting, and for the Accounting-Commercial Department, R. E. Packer and A. E. Aungst.

Fortunately the committee had arranged for the exclusive use of the large dancing pavilion on the grounds and the balance of the program was carried out under cover. This consisted of tugsof-war, pony races, rope-throwing, a 100-yard dash and a swimming contest.

The special cars left the park for Harrisburg shortly after 10 P.M., and from the expressions that were heard on the homeward trip it is certain that the picnic will be repeated next season.

Herbert W. Dean

As briefly noted in our last issue, Mr. H. W. Dean, former Traffic Engineer of the Harrisburg Division, has been appointed Chief Clerk to the General Superintendent of Traffic. Dean will have direct charge of the clerical force of the General Superintendent of Traffic's office and will be responsible for all the filing and statistical work of that office, and will make special investigations for the General Superintendent of Traffic of clerical methods and routines.

Mr. Dean came with the Bell System in 1906, and, with the exception of a year in the Equipment Engineer's office, has been engaged in traffic engineering work at Philadelphia and Harrisburg since that date.

Appreciation to Mr. Stryker

Ten of the former immediate subordinates of Mr. Burdett Stryker, who are in the Harrisburg Division, have presented him with an appreciation that is somewhat out of the ordinary. It is in the form of a brown limp leather booklet, 8½ x 12 inches, on the silk-lined cover of which appears in gold the number 603, the Harrisburg Division code during their association with Mr.

Imported Japanese paper of a rich buff tint is

Frank B. Evans

Mr. Young will be succeeded as Traffic Superintendent of the Philadelphia Division by Mr. F. B. Evans of the Enginering Department.

Mr. Evans is well known to the members of the Traffic force in and about Philadelphia. Not only his previous association with the Traffic Department but also his more recent position as Engineer of Traffic, together with his experience



as a member of the A. T. & T. Co. committee on traffic operating practice, have well qualified him for this new position. His comprehensive and accurate knowledge of all that goes to make up good telephone service is the result of long and careful study of operating problems throughout a wide and diversified territory.

The new Traffic Superintendent is a Philadelphian, born in that city on October 26, 1880, and graduated from the historic old Penn Charter School and the University of Pennsylvania. After leaving college Mr. Evans was employed by the New York Ship-Building Company at Camden for three years, and joined the Bell System in 1904 as Traffic Inspector.

In the following year he was transferred to Wilmington as Traffic Manager, and in 1907 returned to Philadelphia in the same capacity at Spruce and Locust. 1909 found him at Camden. as Division Traffic Superintendent of the Delaware & Atlantic territory, and one year later he became Engineer of Traffic, which position he leaves to assume his new duties.

used for the forty pages. The introduction is. "To Burdett Stryker, in honor of his association with the Harrisburg Division." On ten of the pages appear excellent dull-finished photographs of the givers, and facing each is a poem by one of the participants. A cartoon appears at the bottom of each poetry page, sketching that particular worker's former duties and peculiarities.

All of the lettering was done by F. J. L. Mintzer, artist in the Publicity Department. Handillumined initials are on every page, and the colorings are in gold, green, brown, red and black.

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THE TELEPHONE NEWS



This table, spread for our employees at Rocky Glen, near Scranton, was too long for the camera

New Form of Voucher Index Cards in the Accounting Department

By F. C. Malatesta, Supervising Accountant, Philadelphia

THE General Accounting Department has recently adopted a new form of Voucher Index Card, on which is kept a record of each voucher forwarded to the Treasurer for payment and also of each receipted bill in-

(Continued on page 6)

Votes on The Telephone News Contents

THE TELEPHONE News of July 1 there was a return postcard asking for his or her vote on the relative interest and helpfulness of the six more common types of subjectmatter treated in our paper. We have waited until we judge that all have replied who intend to and find 1392 cards—11 per cent. of those

(Continued on page 4)

Outing of Northern Pennsylvania and Commonwealth Telephone Company Employees

By Louis Smithing, District Correspondent, Scranton

YEAR ago August 10, 1912, the northeast Pennsylvanians—who are proud to name as their occupation that of furnishing Blue Bell service—had their first annual outing at Rocky Glen, a picturesque park

(Continued on page 2)



near Scranton. Rain dashed the hopes of the ball players and they were compelled to call off a lively game in the third inning.

Determined to win out in 1913, the committee chose July 19, three weeks earlier, as the date for this year's fun, and scheduled the ball game as the first event of the afternoon. They weren't disappointed, either, for the full program of five innings as planned took place with all of

Baseball

Baseball over, C. P. Williams, who has the reputation of being a good Traffic Manager at Scranton, acted as chairman of the committee on field sports. Armed with a huge megaphone and a forty-four-caliber horse-pistol, he called upon all athletes or supposed athletes in the party to come forward and test their skill in various events. As a starter Director Williams arranged

out some fine long-distance throwers. Miss Mayme Gregory, of Centermoreland, proved herself the champion hurler, taking first honors, with Miss Anna McGinness, of Scranton, second, and Miss Edith Kinney, of Wilkes-Barre, third. No man was ungallant enough to measure the distance which Miss Gregory threw the ball, but the word of the spectators is that "it was some distance!" Furthermore, the little globe



Some of the Events and Participants in the Northern Pennsylvania-Commonwealth Telephone Co.'s Annual Day in the Country

the excitement that usually attends such struggles. But if we begin more logically, we must say that a hundred more than last year from Scranton, Wilkes-Barre and near-by places joined the 1913 crowd. There were 400 this time to contest and witness almost every type of contest from baseball by men to nail-driving by women.

Employees of the Commonwealth Telephone Company of Centermoreland came this year as last and distinguished themselves by stripping Wilkes-Barre in baseball honors to the tune of 7 to 4. If the full nine innings had been played, no one knows what the score would have been, for all were in dead earnest.

a tug-of-war between Scranton and Wilkes-Barre. The teams were composed of the following tuggers: F. M. Fisher, John Sauer, William Rose, J. Stout and D. McAuliffe for Wilkes-Barre. Against them were arrayed M. Toole, B. Thomas, B. Riedmiller, J. A. Arthurs, J. Patterson and J. Brezee for the Scranton team. The boys from the hyphenated city pulled the Scranton lads across the line in just forty seconds. We'll leave it for the readers to guess whether greater weight or larger muscles did the work for the unevenly numbered sides. We who saw it think all lucky that the rope held out.

The women's ball-throwing contest brought

went somewhat in the direction aimed at and no judges were injured by misdirected twirls.

Candle Race

Ability to run with a lighted candle tested the prowess of the women in the candle race. They were required to light a candle and keep it lighted while "dashing" fifty yards. If the candle went out they had to stop and relight it. Miss Madeline Burns, of Scranton, won in the record time of twenty-four seconds. Miss Andrews, of Wilkes-Barre, was a close second. Not many matches were said to have been used by the two winners.

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Three-legged Locomotion

Scranton captured two of the three prizes in the men's three-legged race, Stevens and Lyden, of Scranton, being first, Faux and Wollever, of Wilkes-Barre, second, and Bevan and Nothacker, of Scranton, third. The winners' time was nine and a fifth seconds. We believe it is faster to Use the Bell, especially when more than the few yards here humped over are involved.

Jumps and Runs

The running broad jump was a classy event, first place going to C. A. Boston, Commercial Superintendent of the Commonwealth Telephone Co., of Centermoreland; second, D. G. Stevens, Plant Department, of Scranton; and third, G. A. Clark, Plant Department, of Wilkes-Barre. Distances cleared were more impressive in this event when not measured, just as they were in the women's ball-throwing contest, so no one attempted to bind the contestants' pride by mere figures.

While no world's record was made in the 100-yard dash for men, the event was hotly contested, G. A. Clark, of Wilkes-Barre, winning in 11.3 seconds, with J. Sliney, of Wilkes-Barre, second, and D. G. Stevens, of Scranton, third. These same men won in the same order in the 50-yard dash, Mr. Clark's time being six seconds for fifty yards.

It would look as though that man Clark should have entered his name at Stockholm and at Berlin, for he captured numerous "blue ribbons" here without even using a certain widely advertised rubber heel to facilitate ground-covering.

As a weight-reducer the 50-yard dash for fat men was a winner, every contestant but one falling prone upon the ground. C. P. Williams, of Scranton, proved himself the fastest fat man, capturing the dash in seven seconds, one second slower than the time made by Clark, of Wilkes-Barre, in the regular fifty-yard dash. William Rose, of Philadelphia, was second, and W. J. Kelley, of Centermoreland, third. Mr. Williams is now considering entering the world's fat men's Marathon. They do say that the 200 minimum for contestants in this stunt didn't faze him.

Thumb-Pounding

To save the day, Wilkes-Barre's fair sex showed what can be done when nails are to be driven home. In ten and four-fifths seconds, Miss Kinney took the laurels. Miss Gregory, of Centermoreland, hammered the nail second and Miss Mary Ginley, of Scranton, tapped hers third. They were more than taps, too, "b'lieve us!" Don't ask to see the wood dents caused by misdirected blows; they belong to the society's archives and are on view only to members.

The 50-yard dash for women went to Wilkes-Barre picnickers, too, and skirts (never any other cause!) held Miss Andrews, the winner, to eight seconds—one second slower than the fat men's time. Miss Gregory—hammerer—came second and Miss Ginley, also a poundist, won third place. Wouldn't it look odd to see these racers speeding that way to the central office some fine fall morning?

Grand Summary

| The summary of pla | ices ' | won sr | iows: | |
|--------------------|--------|--------|-------|-------|
| | 1st | 2nd | 3rd | Point |
| Scranton | 3 | 3 | 5 | 29 |
| Wilkes-Barre | 5 | .1 | 2 | 33 |
| Centermoreland | 2 | 2 | 1 | 17 |

Philadelphia

Pie vs. What?

The greatest and most exciting event of the day was to have been the huckleberry-pie-eating contest between Simons, Ward, Garvey, Williams and Stanton, of the Scranton District, and Brisbin, Kintzer and Wandel of Wilkes-Barre, W. B. Gay of Centermoreland, and Northup of Glenburn. This contest was scheduled to take place in the picnic grove just before lunch was served, and it was a disappointment not to have the stunt take place. We are told on the best authority that all the pickers near Scranton had been bringing in berries from the Pocono and Blue Ridge Mountains for the past week; but the task of making so many pies seemed such an appalling one, as soon as the proposed contestants became known, that the bakers said: "Impossible! Pies of that size and number don't grow in either city, and new ovens for a single contest are a doubtful mancial proposition." The few loads of berries were disposed of through other channels and the event did not materialize. Not for publication, however, we'll say that the most disappointed picnicker was one of these scheduled contestants who said he had one prize at least cinched. Those who know the men will say that the continuity of local Bell service stood a better chance without than with this one tussle.

The Supper.

When the spectators had seen these contestants demonstrate their ability in winning or their good-nature in losing and enjoy even that, hunger directed all to the wooded section of the beautiful grove. There a table—the longest ever—had been spread under the direction of P. S. Harkins, of Scranton, who acted as commissary general. His experienced and willing lieutenants were C. F. Brisbin, W. A. Hughes and A. W. Schafer, of Wilkes-Barre, J. W. Shepherd, of Hazleton, and E. G. Simons, of Scranton.

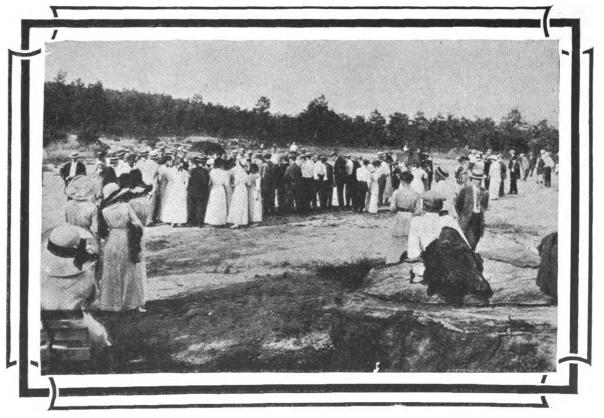
These were supplemented by the following men who served the multitude seated about the grove: J. S. Schaub, Thomas McKeon, B. F. Dorsey, L. Wintermute, C. L. Hoch, W. R. Barrett, J. J. Lynn, J. S. Thompson, L. L. Minnig, J. E. Rich, R. Suesenguth, F. Stanton, R. Phillips, H. E. Smith, J. E. Boyle, L. Smithing, B. Reidmiller, G. J. Weidenman, P. McGeever, Geo. Davey, J. M. Woomer, H. E. Ward and E. Murphy.

A newspaper said that the presence of so many Wilkes-Barre men on the supper committee was for the purpose of giving the employees of that city an even break with the historic eaters from Scranton and other places. However, no city or representation won over any other, nor was there need of attempting it, for an abundance had been provided.

Music and Dancing

Mr. L. D. Speece of the Wilkes-Barre Commercial Department deserves credit for the fine orchestra which he organized and for the excellent dance music which they furnished throughout the afternoon and evening in the Crystal Palace—the park's excellent dancing pavilion. This continued throughout the evening, and all who cared to had the opportunity of dancing to well rendered recent music.

When this was concluded, "Home, Sweet Home" was played and the 1913 picnic was officially ended. The work of the committees, the generous offering of service by busy men and women, the whole-hearted enthusiasm of those who made the final arrangements and took care of the details, not forgetting the contestants who volunteered to enter in the spirit of the day,—all these were sources of pride of our Company. "The Bell people do have good times," one can hear said everywhere. The 1913 Northern Pennsylvania Telephone Society's outing amply bears out this statement.



Viewing the Women's Ball-Throwing Contest, Won by Miss Gregory, of Centermoreland

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| | Traffic | Plant | Commer- cial | Accounting | Engineer- ing | Unsigned and W. Union | and | Rights of Way | Subject Totals |
|---|---------|-------|-----------------|------------|------------------|-----------------------------|-----|---------------------|-------------------|
| Editorials | 234 | 200 | 220 | 23 | 7 | 8 | 2 | 4 | 698 |
| News Items | 242 | 198 | 157 | 11 | 8 | 10 | 4 | 2 | 632 |
| Telephone Societies' Doings and Sayings | 327 | 70 | 48 | 18 | 8 | 3 | 2 | 2 | 478 |
| Technical Papers | 39 | 297 | 90 | 16 | 12 | 2 | 1 | 1 | 458 |
| Personal Mentions | 174 | 63 | 33 | 2 | 5 | 2 | - | - | 279 |
| Organization Changes | 79 | 112 | 44 | 6 | 5 | 6 | 2 | - | 254 |
| Vote Totals | 1095 | 940 | 592 | 76 | 45 | 31 | 11 | 9 | 2799 |

A division of the vote totals by two will show approximately the number of cards returned by that department.

Votes on The Telephone News Contents

(Continued from page 1)

sent out-brought 2799 votes for separate headings, or an average of two to a card. The average number on each card is higher than it would otherwise have been but for a few cards which totaled the entire office and put the choices in bulk after each heading; also many voted for two, three or four subjects. Those individuals who used a single card to vote for all six subjects were counted in the total list of cards, but the votes were, of course, entirely disregarded inasmuch as they indicated no choice. Arranged numerically, the "election returns" are reproduced on this page.

Generally speaking, the entire contents of the various issues are helpful to certain departments or groups of employees. It is understood, of course, that no article will be of equal interest to all departments nor to all in a single department; that is true of any magazine or newspaper. In view of that fact, it was interesting to see the very large percentage of votes favoring editorials

and news items.

Reports of the Societies' doings are doubtless valuable to a large number because they place in permanent reachable form what absentees or

those in rear seats might have missed.

It is realized that technical papers are of far greater value when in the simplest and most general wording. For that reason we are attempting to get these treatments in the clearest possible style before printing them. However, papers presented before some of our societies lose much of their value when delayed for the time necessary to simplify them for general reading. Therefore those papers are, at times, printed without change for the use of departments or groups of employees associated with the respective kinds of work covered.

Personal Mentions and Organization Changes have demonstrated their value in creating interest. While we may not learn all of certain em-

ployees' Company history, nor in the time available verify every change in title or location to which employees have been appointed or transferred, it is felt that those printed are of definite value and inspiration to the others.

On some cards returned, and in the letters accompanying a number of others, excellent suggestions were received which will be tried out

in due time.

So many have signified in conferences and through other means their decided interest in what our paper stands for, and have volunteered their assistance, that we have every reason to expect a much more general publication. Accounting, Rights of Way, Financial, Legal, Engineering, Traffic, Plant and Commercial articles and illustrations should crowd each other until an enlarged paper will be required to cover our Company's activities.

Found

A Kensington (Philadelphia) subscriber wrote in commendation of a searching job done by an operator:

"My son, who is a doctor, was at Sharon Hill and Collingdale on Wednesday evening of this week when a call came over my telephone for him (an emergency case) and we called for him next door to where he was, but we could get no response. We told the operator the nature of the case, and by her persistent efforts we finally got the message to him at Collingdale, and I am writing to you to express my appreciation of this operator's courtesy and earnest endeavors to get us in touch with my son. She is to be very highly commended, and if I knew who the girl was I would personally write to her as I am writing to you, and I hope you will take the pains to commend her for her great kindness and willing assistance given when it was so important.

Yours very truly,

The operator was Miss Emma Endres, night operator in the Toll office, Philadelphia.

Such a Little Thing By Josephine Lawrence

A True-to-Life Story in Three Parts By permission from Farm Journal, Philadelphia.

NE clear, cool day, early in October, Mrs. Grayerson washed the dinner dishes with a pleasurable sense of excitement, for the prospect of an unusually pleasant afternoon lay before her. From the kitchen window she saw her husband harnessing the pretty black mare, and as she dried the last dish he led the horse and runabout through the big white gates and tied Phyllis to the hitching-post. Then he hurried away to his corn-field.

Mrs. Grayerson was all dressed to go to town. She hastily whipped off her enveloping apron, smoothed her hair, and proceeded to pin on her very becoming hat. She was a large, fair woman, with the sweetest temper in the world, and a little trick of absent-mindedness, especially when hurried. As she straightened the living-room by a few deft touches, she remembered two items that were needed on her grocery list. She telephoned her order hastily and, in her excitement. neglected to replace the receiver on the hook, thus effectually silencing the whole line for the after-

There were four other subscribers on that wire.

PART II

Molly Seeburn smiled happily to herself as she searched through her handkerchief box for the very prettiest one.

"You're getting ready early," her mother advised from the doorway, smiling at the preity

flushed face turned to her.

"Dick is never late," answered Molly confidently, "and if anything keeps him he'll tele-

Molly waited an hour and a half in all the glory of her new fall suit. Then she went slowly upstairs, cried a little, and came down in her oldest gown. She cherished a growing resentment toward Dick, until her mother discovered that it was impossible to reach "Central.'

Three miles away a young man alternately fumed at the telephone company and worked over

a sick horse.

noon.

"You're sure you won't get nervous?" Mr. Griscom looked at his wife with ill-concealed anxiety. She was a small slip of a woman, with great dark circles under her blues eyes, and plainly in frail health.

"No need to worry about me, Tommie." she assured him brightly. "You won't be gone more than an hour, will you? And I can call up some one and talk, so the time won't seem so long."

"I'll be back in less than an hour," he promised. kissing her gently. He left the house with an

undefinable sense of uneasiness.

Stella Griscom watched until the top of his buggy disappeared at the turn in the road. As the sound of the horse's feet became inaudible. she began in frantic haste to lock every door and window in the small farmhouse. Not for worlds would she have owned, even to her husband, the blind, unreasoning terror that shook her the moment she found herself alone. She did not know what she feared—it was nothing tangible.

"I'll call up Mrs. Grayerson," she decided. "and ask her to come over. I never felt quite so

dreadfully frightened before."

But the bell didn't ring. Stella tried again, her shaking fingers clinging with difficulty to the knob. "Central" wouldn't answer. She was alone-

(Continued on page 5)





alone! and the something she dreaded was coming nearer. She screamed-

Thomas Griscom found his wife on the floor, the receiver grasped tightly between her cold hands. The eyes she opened to him were dry and burning with delirious fever. Unwilling to leave her again, even for a moment, he carried her in his arms to the nearest neighbors and asked them to go for the doctor. "Our phone is out of order," he said.

Mrs. Beatty poured a kettle of boiling water into the churn. She disliked churning in the afternoon and usually managed to do all such work in the early morning. But that morning the baby had needed all her attention, and had only fallen asleep since dinner. "Daughter" would help her mother make up for the lost time. She said so. "Daughter" was three years old and very active on her little fat feet.

Mrs. Beatty went in for a glance at the sleeping baby before setting to work in earnest.

'Daughter's" screams brought her flying back to the kitchen, a dull terror clutching her heart. The small girl had pulled over the churn, allowing the hot water to pour out, striking her below the waist and running over the poor little legs. The child was in great agony and her cries awoke the baby brother; he screamed lustily.

The distracted mother called her husband, a tall, silent man, who never "lost his head."
"Phone for the doctor," he said quietly, "and

get some sweet cream and flour.

"I can't get 'Central,' " announced Mrs. Beatty a few moments later; "the line must be out of

"That's funny," absently commented her husband: "it was all right at dinner time."

He had to drive to town for the doctor, leaving his wife alone with two screaming babies, one badly scalded.

"Jimmie, Jimmie!" called Mrs. Stanton, hastily packing her husband's suitcase, "ring up 'Central' and see how much time papa has to catch that

train. I'm afraid our clock is slow."
"Line out of order, ma," reported Jimmie, appearing at the bedroom door and regarding his father with interest. "Think you'll make it, dad?"
"I guess so, son," Mr. Stanton replied, drawing

on his coat; "if I don't I'll lose \$500. Good-bye. mother. Don't worry—that clock keeps good

Mrs. Stanton stood at the door, anxiously watching them drive off.

"If he'd only make Jimmie hurry the horse a little," she told herself as she turned away, "he could surely catch that train. But he thinks he has plenty of time, and with the wire out of order I can't prove that the clock is slow.'

Mr. Stanton missed the train. There was no other till seven o'clock that evening, arriving in the city hours too late.

PART III

A few moments before five Mrs. Grayerson returned, flushed and happy from her visit with the daughter of an old friend who had been living in California since her marriage.

Her eyes strayed to the corner table holding the telephone.

"Why, I left the receiver off!" she exclaimed, in blank astonishment. She snapped it in place and stood silent for a few moments, lost in specu-

"It was such a little thing to do," she decided comfortably, with the easy philosophy of the good-natured woman; "probably no one was really inconvenienced this afternoon, or even greatly annoyed.

hiladelphia Division~ O.J.CLEARY, Division Corresponder

Division Boundary Change

Effective July 23 the Eddington (Pa.) central office district of the Atlantic Coast Division and the Andalusia central office district of the Philadelphia Division were combined within the new Cornwells central office district. The Cornwells District became a part of the Philadelphia Division, Germantown District.

1230 Arch, Cashiers' Division

Thomas Peoples, an inspector of automatic coin-boxes in the Poplar and Diamond central

Oak Lane Central Office

By Miss M. A. Lenahan, Chief Operator

Two years ago our office at Oak Lane was only half its present size. In the spring of 1911, when the work of enlarging this building was commenced, the office contained a ten-position switchboard, with but eight of the positions in use. To-day there are sixteen positions, thirteen of which are in use, comprising 2251 stations. The Oak Lane central office, situated as it is on the outskirts of Philadelphia, includes within its territory the suburban towns of Melrose, Ashbourne, Elkins Park, La Mott, Olney, and part of Ogontz. At present this successful central office has an operating force of twenty-one young women, some of whom are shown in the accompanying pictures.



office districts, Philadelphia, reports this odd occurrence: In clearing the trouble at a stationwith a small amount of business, a slip was handed to the subscriber so that commission might be paid when the regular collector visited that station on his next trip. The subscriber said, "I hope I can get the commission soon, for the cats need the money." Explanation developed the fact that as the commission had always been small since the station had been installed two years before, it had been devoted to the purchase of food for the office cats!

A well-known subscriber writes from Liverpool that he is about to return to Philadelphia and therefore desires to have his telephone connected, adding that "anyone dissatisfied with Philadelphia service had better come to England and attempt telephoning here—he will never com-OWENS. plain again.'

1230 Arch, Business Division

On more than one occasion a subscriber complained that his line was out of service. In each case the trouble was due to wet cord, the cause of which could not be accounted for until it was discovered that the baby had a habit of chewing it.

A new subscriber who was placed on a party line with an intimate friend called at the office and requested that a change be made, as she did not see how she could send her small boy to the friend's house every time she wanted to talk to her over the telephone. When advised that the party should be called in the usual way, she was satisfied to have no change made.

A subscriber who had accepted the invitation to visit one of the central office switchboards said that his visit had proved a revelation to him and that he now realized that a call meant something more than merely picking up a receiver.

Recently during a severe electrical storm a subscriber called up the Business Office and asked if there were any danger involved in making a call during the storm; if not, she said she would "summon her courage and do it."

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New Form of Voucher Index Cards

(Continued from page 1)

cluded in employees' reimbursement vouchers. The file consists of primary alphabetical divisions, each division including a group of surnames and being subdivided into secondary alphabetical groups according to given or firm

the secondary guide card marked C-2, as shown in Figure 3.

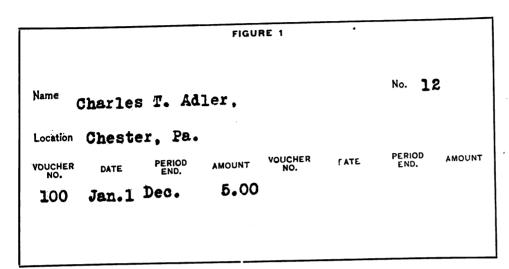
It will be noticed that in the code shown on the primary guide card, the number associated with Aa is 1, whereas the number on the tab of the primary guide card Aa is 10. This latter number is determined by associating the figure 1 after the Aa with the zero in the code for given and firm names, the combination being 10. The index number for Charles T. Adler, therefore, is 12, the combination of the character 1 after the Aa and the character 2 shown both above the C in the code for given and firm name and also on the secondary guide card.

What is known as a "Card Record Desk" is

what is known as a Card Record Desk" is used by the clerks engaged in this work. This desk consists of three sections joined by two posting boards, for the use of two clerks. Each section contains six card trays holding twelve hundred cards each, the trays being arranged so that each clerk is within easy access of every card in nine trays. The reproduction from a

photograph illustrates this.

As this filing system is a combined alphabetical and numerical one, an accurate check has been obtained against errors in filing, as cards filed by name are checked by number and cards filed by number are checked by name. Since there are only sixty primary filing divisions, and as the secondary divisions of each primary one are the same, the clerks have become so thoroughly familiar with the system that the moment a name is seen on a bill they immediately know what index number to refer to. Increased rapidity in filing has resulted since the adoption of this system, and as there are approximately twenty thousand index cards the saving of time has been considerable.



-2-Aa 10

FIGURE 2

C 2

FIGURE 3

| A | 8 | | С | ٦ | D. | E | F | C | ŀ | 1 | Ы | ŀK | | L | | A | N-O | P | -Q | F | 3 | | 3 | Ţ. | U-V | W | XY | |
|--------------|----------------------------------|----------------------------|-----------------------|----|----------|----------------|----------------------|----------------------|------------------------------|----------------------------|---------------|----------------------|----------|----------------|----------------------------------|----------------------------------|------|------|----------------|----------------|----------------|------------------------------------|-----------------------------|---------------|----------------------|----------------------------------|-----|----|
| Aa 1 An 2 | Ba Be Bi Bc Br Bu | 3 4 5 6 7 8 | Ca Ch Co Cor | 10 | Da Da | 13 14 15 | Fa Fo Ga So | 16 17 48 19 | Har Har Ha Ho Hu | 20 21 22 23 24 | J Ka Ki | 25 26 27 28 | Le Lo | 29 30 31 | Ma Mc Me Mi Me Mu | 32 33 34 35 36 37 | N 38 | - Pi | 40 41 42 | Ha Ri Ro | 43 44 45 | Sa Schi Sh Sm Sn Si | 46 147 48 49 50 | Ta fi U | 52 53 54 55 | Wa 56 We 57 Wi 58 We 59 | XYZ | 60 |
| | | _ | | | | | | _ | _ | _ | - | VE | N A | ND | FIRE | I N | MEK | E Y | _ | _ | _ | | | | | | | |
| | | | | | | | - | 5 | | | 2 | T | 8 | 4 | | 8 | • | 7 | T | • | | • | | | | | | |
| | | | | | | | SINGLE SH 34 | MAGE FAICET | A | • | С | 1 | D-E | 7. | c | H-I | J-K | Ŀ | M | H-8 | T | ·z | | | | | | |
| | | | | | | | · | 2 Al | T0# | A7-6 | CAT | LIE | | P | R | M | AR. | Y | | | | | } | C | A R | D | | |

| \[A | | 8 | | C | ; | D | ·E | F | C | F | • | ŀJ | ·K | | | N | 1 | N | -0 | P | Q. | | R | | 3 | 1-1 | -1 | W | XYZ |
|----------|-------------------------|----------------------------------|-------------|-----------------|---------------------|----------|----------------|----------------------|----------------------|-----------------------------|----------------------------|---------|----------------------|----|----------------|-----------------------------------|----------------------------------|---|----------|----|----------|----------------|----------------|-----------------------------------|----------------------------|---------------|----------------------|----------------------------------|--------|
| A2 AB | 2 | Ba Bo Bi Bo Pr Bu | 3 4 5 6 7 8 | Ca Ca Car | 9 18 11 12 | Da Ba | 13 14 15 | Fa Fa Ga Go | 16 17 18 19 | Ha Har He Ho Hu | 20 21 22 23 24 | j Ka | 25 26 27 28 | 10 | 29 30 31 | Ma Mel Me Mi Mo Mu | 32 33 34 35 36 37 | 8 | 3B 39 | Pa | 49 41 42 | Ra Bi Ro | 43 44 45 | Sa Sch Sa Sa Sa Si | 48 48 49 50 51 | Ta Ti U | 52 53 54 55 | Wa 56 We 57 Wi 58 We 59 | XYZ 60 |
| _ | CIVEN AND FIRM NAME KEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

O ! 2 3 4 5 0 7 0 0

| Partial A-B C D-R F-G M-I J-K L-M N-0 T-Z

C 6. AUTOMATIO HIDEX PARENTED JAM. 54, 161-1, 5507. 6, 101-1, FEB. 16, 161-5

SECONDARY FILING CARD

names. There are sixty primary divisions, and each of these is subdivided into ten subdivisions, making a total of six hundred filing divisions.

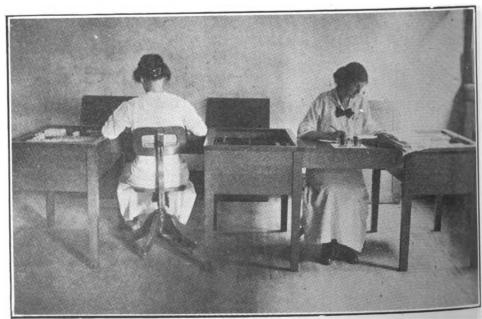
In order comprehensively to describe the principle of this system, let us assume that a bill for five dollars receipted by Charles T. Adler is to be indexed and filed. The bill is first checked as to correctness, assigned a voucher number and its details entered on an index card as shown by Figure 1.

The next step is to file this card in its proper place, and Figure 2 is an illustration of a primary guide card and a secondary guide card, the cards

being of different colors.

As shown by the code on the accompanying illustration, there are two primary divisions for surnames beginning with the letter A. The name Adler belongs to the primary division Aa-1, as this division includes surnames the first letter of which is A, and the second letter any one between a and m inclusive. The given name now determines to what secondary division the index card belongs. As the name Charles begins with the letter C, the index card should be filed behind

Card Record
Desk
Used With
New System



Published the first and fifteenth of each moath in the interests of The Bell Telephone Company of Pennsylvania
The Central District Telephone Company
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FORD HUNTINGTON, Vice-President
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Vol. IX

AUGUST 15, 1913

No. 16

Which Wins?

A T the midsummer regatta of the Beverly Yacht Club there were two crews entered in the canoe doubles race. The four men in these two canges looked, as they knelt at the starting-point, as if they might have been four brothers. But for the distinguishing mark of the blue jerseys of the one and the white jerseys of the other crew, one would have experienced difficulty in telling them apart. In stature and build, and, it was later to be learned, in staying power and strength, they were pretty evenly matched.

Crack! went the starting gun, and four paddles dipped into the water with a mighty and simultaneous stroke, thrilling the light barks into such a start of life that they seemed propelled by the shot of the starter's gun. Stroke! stroke! each crew was doing beautifully. Swift, strong, well-timed, with the full push and pull of an excellent "straight-arm" stroke, was the dip of each man's blade. "Well matched," said everyone, and the enthusiastic rooters of either side gave vent to encouraging shouts and yells as the two canoes came on prow and prow toward the finish.

Halfway something happened. The blue crew was keeping up the pace; the speed of their stroke had not lessened, they were not putting one ounce less of strength into it; but the white was pulling ahead inch by inch. Why? There was every evidence that the blue was pulling just as well and as hard as at the start, but, hard luck! their steersman was not making a straight course. In the heat of the contest he had forgotten to keep the canoe's head pointed at the mark. His boat was bearing away slightly from the course, and the wind, seeing its chance,

helped to blow the light craft further from the straight path. The finish was close at hand. Both crews redoubled their efforts, and, of course, the straight-at-the-mark canoe of the white crew shot over the finish line about three lengths ahead.

An unsatisfactory ending to any work in the race of life is often the result of, not the lack of effort, not the lack of stamina that makes a man stick to the finish; not the lack of ability to do, but the inability to steer a straight course. Ill-directed effort sometimes is worse than no effort at all, and, in any case, work which goes along with little sense of direction—without proper aim—is nearly certain not only to fail to hit the mark, but to miss the target altogether.

In the telephone business illustrations are not lacking that every job requires some definite plan to be adopted and followed. We have a properly built plant, because plans were wisely laid and followed; growth of the central office equipment takes proper care of increasing traffic because it is definitely planned; we have a good working and economical installation because the surveyor planned it well and the installer followed the plan through to the letter; we gain stations because a definite and comprehensive selling plan is followed; the individual salesman makes his efforts show because they are well directed; an excellent office routine is adopted and the business runs along as in oil because that routine is followed faithfully. All of this evidences that to make efforts count by following the wisely planned and authorized path leading to some definite end, is a pretty sure way to make every bit of work count—and win the race.

"My 'Phone is Out of Order, Please Call and Fix It!"

THAT sounds very simple and explicit. "Yes, surely, all that is necessary is to go to the premises, repair the damage, and there you are!" Would that it did work out this way! Here is an actual case:

"Please have your man call at once, as our 'phone is out of order, and oblige. We remain,

Yours truly, etc."

The note on the completed trouble slip reads: "Loose connection at cable terminal made line noisy."

Here is the short lesson to telephone employees: Do not take anything in the line of trouble for granted—dig down until the real cause is removed. Let each one (in this case the employee last at the box from which a line is run) not only do

his own piece of work carefully, conscientiously and well, but also remember it takes only a sharp glance of the experienced sage to detect some budding case of trouble like this loose connection. Our ideals are high; we can't retrace our footsteps,—and therefore let us do well each thing that comes our way. It will become a habit in time.

Our Company's welfare is our individual welfare. Don't forget that!

Is it a Weakness of Yours?

Is there a letter writer among us who has not—at one time or another—been tempted to polish off some request for a remittance delayed or a permit disputed with the familiar "Thanking you in advance"?

Somehow we like the sound of it; but do we always stop to figure out how it strikes our correspondent? Are we careful that this phrase shall not savor of cocksureness—a suggestion that the other fellow hasn't spine enough to refuse, whatever may be the circumstances?

Maybe "Thanking you in advance" has a real place in modern letter writing, though it is rather difficult to imagine a business communication in which the positive though polite request will not accomplish more than the take-it-forgranted-you-won't-refuse method.

If you have a favor to ask, ask it, straight from the shoulder, politely, and with the assurance that you will appreciate a compliance. It is generally wise to save your thanks till they are due; that's when the other fellow expects them.

An Operator on Operator's Work

of self-improvement," writes Miss Ethel M. Trend, an operator in our Chestnut Hill (Philadelphia) central office. "It is the desire to know what constitutes true success and the willingness to take the patient steps that lead to it; the desire to correct errors, traits and tendencies which will hold back our progress and keep us from reaching our goal; and the willingness to accept new ideas and to act upon them."

"We must remember that asking intelligent questions is a valuable accomplishment."

"Always improving somewhere—bettering our best. Progressiveness is looking forward intelligently, looking within critically, and moving on incessantly."

Digitized by GOOGLE

Reading District

A Shamokin subscriber called the Chief Operator and informed her that the "horn on his telephone" was broken and he would like to have a new one put on.

A juicy roast was saved from burning the other day by the opportune ringing of the telephone in the kitchen. The housekeeper was being detained at the door by a "silver-tongued" picture agent. She had made a number of unsuccessful attempts to bring the interview to a close when the telephone bell rang. The escape was thus made and the roast incidentally rescued.

A post card showing a view of our new Lebanon building in the foreground has been placed on sale at all news stands and cigar stores throughout Lebanon County.

HYKES.

Scranton District

The Progressive Telephone Company, Wayne County, is one of our latest connecting companies. This company has opened a section that was heretofore without a telephone line, and the people of the vicinity are enthusiastic about the "Bell." One of the Scranton papers ran a large cartoon to illustrate the story of the banquet which the Progressive Telephone Company held to commemorate the introduction of telephone service into that section; and now a long poem appears on this Company in The Wayne Independent of Honesdale.

Williamsport District

A Sunbury subscriber recently decided that,

as the nature of his work had been changed, he would no longer have use for his telephone and accordingly served the Company with a written ten-day notice. On the day the telephone was to be disconnected the salesman called and was told by the subscriber that his wife had persuaded him to reconsider the matter and continue the use of the service. "The truth of the matter is," he said, "she hasn't talked to me since I wrote the notice ten days ago."

Aug. 15

"The telephone has been a godsend to me," wrote a woman who had been suffering from the effects of being scalded with boiling water.

The Sunbury Chief Operator recently experienced some trouble in explaining satisfactorily to a non-subscriber why he should not use the street number in the directory in calling.

Application covering a No. 2 private branch exchange with ten stations has been signed for the residence of Mr. J. H. Weaver at Williamsport by salesman H. T. Dinan.

Thirty Years Ago

Electrical News of 1883 as Presented in "Electrical Review," the Only Electrical Weekly Published in the United States at that Time—Fifth Installment

(From "Electrical Review," New York, April 19, 1883)

Excerpts reprinted from "Electrical Review and Western Electricas,"

April 19, 1913

Some Electrical Patents of 30 Years Ago

March 27, 1883:

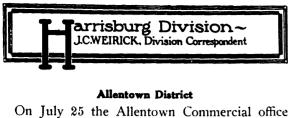
Telephone-exchange signaling circuit and apparatus, Theodore N. Vail, Boston.

Long-Distance Telephoning

With a view to posting the public upon the subject, a reporter visited Henry Bentley, of Phila-

UPPER LEFT:

The Great Rocky Glen Tug-of-War between Wilkes-Barre (winners) and Scranton. Scranton's tuggers are in the foreground. C. P. Williams, Starter, has revolver in the air.



On July 25 the Allentown Commercial office was moved from its old quarters, Hall and Linden Streets, to temporary quarters at 113 N. Seventh Street, pending the completion of a new three-story office building.

As a result of that never-give-up spirit on the part of salesman E. H. Sleider, of Bethlehem, an application for service was secured from a prospective subscriber who had been unsuccessfully interviewed for a period of three years.

Late Saturday night, July 12, a trolley pole became entangled in three of our aerial cables which caused nearly 400 stations to be cut out of service. Wire Chief Miller was soon located and the cablemen started work at seven o'clock Sunday morning. At 7:30 P.M. all trouble was cleared with the exception of a few straggling cases.

Harrisburg District

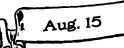
The accompanying photograph is of the telephone display in the window of M. T. Garvin & Co., Lancaster. Mr. Garvin now has a private branch exchange with 14 stations in his place of business. [See page 14.]

je

LOWER RIGHT:

Start of Candle Race. LEFT to RIGHT: Misses Noone, Rave, Harte, Ginley and Lynch of Scranton and Misses Andrews, Margaret O'Malley of Wilkes-Barre and Miss Burns of Scranton, who won in 24 seconds. Miss Andrews of Wilkes-Barre was a close second.

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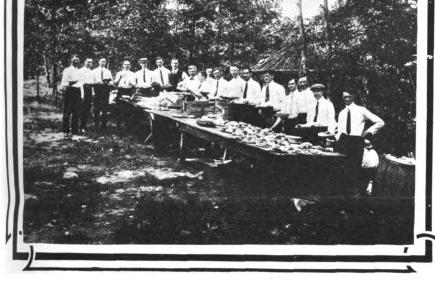
Just before the Games and Contests began at Rocky Glen. Note the views all show how well adapted to the purpose was the park chosen by the Northern Pennsylvania Telephone Society's committee.





Agile Luncheon-Servers at Rocky Glen

LEFT to RIGHT: Thos. McKeon, B. F. Dorsey, L. Smithing, W. F. Most, C. F. Brisbin, A. W. Shaffer, J. S. Thompson, E. G. Simons, R. Suessenguth, R. S. Harkins, W. J. Morgey, F. M. Stanton, L. L. Minnig, B. Riedmiller, J. J. Lynn, J. E. Rich, H. E. Smith and S. Adams.



delphia, a gentleman largely identified with telegraphic, telephonic and similar enterprises, and asked him if it was practicable to establish telephone service between Philadelphia and New York. Mr. Bentley replied: "So far as the mechanical stretching of wires and transmission of sound are concerned, yes; but if I may anticipate your next question as to the speedy development of such system, then I answer distinctly no, and for obvious reasons. In the first place, it has never yet been demonstrated that a continuous wire of one hundred miles is necessary. Such a wire has never been called for or demanded for any purpose, financial or otherwise. Telephone wires can never run in close proximity to telegraphic wires with any satisfaction, as the introduction of the latter would be very apt to interfere with them and cause an unavoidable confusion in the sound transmitted. This might be temporarily avoided by making a detour of the telephone wires at some distance from the telegraph wires; but, allowing for this, the two sets of wires, on entering or leaving a town, would probably come into contact by crossing or otherwise, which would interfere with the working of both, more especially with the wires transmitting sound. You may accept it as a fact that no system of telephony which extends beyond a radius of twenty or thirty miles from any city, however large, will prove a paying investment.

"As an illustration, we have a wire stretched as far as Trenton, and no further. Why? Because people living on the other side of Trenton have no use for Philadelphia, and do not care to

telephone us. Another reason, and a valid one, why this lengthened system of telephonic communication would not be feasible is its utter inadaptability to commercial purposes. All transactions in the world of commerce or finance have to be recorded. The telegraph provides for this, the telephone does not. The telephone represents honor, but that is all; it is not a commercial record."

"Then, Mr. Bentley, you do not think it probable that direct telephonic communication is likely to be established for the near future between Philadelphia and New York?

"I do not, and for the reasons already given. As I told you, it is comparatively easy to hold telephonic intercourse between Philadelphia and New York or Chicago, but it can only be satisfactorily accomplished when ordinary telegraphic operation is suspended, say, on Sundays or during the night, when there is little or no induction of the telegraphic wires. But for purely commercial or financial interests the telephone will not come into favor as a medium of direct transmission between large cities. The telephone, like any other enterprise, is valuable so long as it pays, and when it ceases to prove profitable in a pecuniary way its scientific uses will not avail much. To sum up the whole matter, the value of the telephone is confined, as I have mentioned, within a certain radius; that is where its money lies, and beyond that it has no money-earning capacity."

To Aid toward Accident Prevention

Two men were recently engaged in wiping a joint on a 200-pair aerial cable. The splicer's platform had been anchored to an electric light pole on the opposite side of the street by means of a rope which was attached to the electric light pole too near the ground to give sufficient clearance for a vehicle to pass under it.

A horse driven along the street, being frightened at the rubber blanket used by the splicer, moved to the side of the street opposite the platform, so that the wagon struck the guy rope with sufficient force to throw the splicer from the platform to the street. The splicer sustained a fracture of the left wrist, a sprain of the right wrist, a bruised shoulder and a scalp wound.

This accident was due to-

- 1. Failure of the splicer and helper to see that the guy rope was attached to the pole in such a manner as would afford proper clearance for vehicles.
- 2. Failure to place danger signals or to warn passing vehicles that a man was working aloft.
- 3. Failure to lead the frightened horse past the work.

The observance of any one of these precautions would have avoided the accident.

Digitized by **GOO**

The Pennsylvania Legislature has created a new public utilities commission consisting of seven members.

"It is from your failures and your disappointments, if rightly used, that you will get your valuable experience. It is by overcoming and rising above them that you will achieve your successes."

The biggest-ever field day was held by the New England Telephone & Telegraph Company, August 9, at Point of Pines, Revere Beach—the Coney Island or Willow Grove of New England.

"Labor performed in a shiftless, unthinking, unintelligent, instinctive way is neither dignified nor noble and never is profitable."

The first telephone conversation has been held between London and Berlin. The distance between the two cities is 700 miles and the line includes 60 miles of submarine cable.

"Do not confound labor directed by intelligence with expert or skilled labor, which may be performed in a wasteful, unintelligent, perfunctory or instinctive way."

Pennsylvania has numerous service line companies, one of which is credited with special operating difficulties. Of fourteen subscribers served by this line, twelve are named Myers, several of whom have the same Christian name.

"The best-kept house is that of a housewife who never seems to be busy or in a hurry. If you want anything done promptly, go to a busy man."

Mr. M. C. Rorty, formerly our Division Manager, Pittsburgh, and more recently Commercial Engineer, A. T. & T. Company, New York, has become manager of joint telephone arrangements for the Western Union Telegraph Company. Mr. Rorty's wide telephone experience makes his recent appointment most fitting and of decided interest to our employees.

"All the great and permanent gains in this world come through constructive work, creating new values to old things by making them better and more useful, by creating new things of value to the world, or by the organization of those forces which bring about these results."

With Connie Mack showing his heels in the American, the Phillies runner-up in the National, Wilmington leading the Tristate, and Wilkes-Barre crowding first place in the New York State League, there's material for quite a ball team tucked away in the territory of the Bell of Penna. "unit."

"Remember that it doesn't take any longer, if as long, to do a piece of work when it should be done than it does to do it after it should have been done, and, besides, when done in time it is much more effective."

Since Mr. T. N. Vail became President of the Western Union in November, 1910, the number of that company's offices has increased from 25,000 to 67,000 and is still rapidly gaining.

"Determine what you want to do, then acquire an understanding of all that is necessary to accomplish it most profitably and efficiently, then go about the doing of it in an orderly and effective way."

The non-listed telephone is shortly to be made a subject of inquiry before the Railroad Commission of the state of Wisconsin. It is being argued that the Telephone Company should not, even at the express request of the non-listed subscriber, deny connections with that subscriber's telephone, the number of which is unknown to the calling party, as each subscriber is entitled to the use of every telephone of the system.

"It doesn't take any longer to earn a dollar before you spend it than it does to earn it after it is spent, and, besides, if you have it in hand you are apt to spend it more wisely."

Portland and Middletown, Conn., were recently substantially connected by the laying of a submarine cable across the Connecticut River. The reel, weighing 51,400 pounds, was the largest ever shipped to the Southern New England Company. It carried 1675 feet of 100-pair, 19-gauge armored submarine cable three inches in diame-

"Wait for luxuries and even comforts until you can pay for them and you avoid the discomforts of the future pay-day."



In the Portland (Oregon) 1913 Rose Festival -an annual event of interest-the Pacific Telephone and Telegraph Company was awarded two silver cups for decorated automobiles which participated. The car here reproduced was hidden with yellow Spanish iris, yellow lupin, gaillardias, blue larkspurs, ferns and maple leaves. Blue bachelor-buttons covered the bells. Six cups have been won by that company in similar events within two years.

"Don't fall into the mistake of forming your own opinion of your own intelligence or capacity-let others do that. It is only in politics that your own claims to your own greatness are taken seriously and where promises will be taken sooner than a good record. In real life it is reputation that obtains confidence for you, and reputation is based on performance; not on prom-

In striking contrast to the vertical panels of the telephone switchboards of the modern American exchange is the horizontal arrangement of many switchboards in Germany. The operators sit at both sides of the switchboard, and in front of each, at the edge of the board, are the plugs and keys used in operating. The horizontal board affords a ready surface for the accumulation of dust, making the constant use of vacuum cleaners a necessity.

"Remember if others have push or pull it is because of some force they exert through some reputation they have created."

It is said that the abandoning of physical telegraph lines to some large central African mines Digitized by

has worked a hardship on the natives. They had been accustomed to appropriate the telegraph lines for ornaments and weapons. Wireless equipment will raise the living cost among admirers of these dusky belles.

"Don't get into the habit of being unfortunate,"

The important part the telephone is playing in the operation of railroads is indicated by papers presented at the last annual meeting of the Association of Railway Telegraph Superintendents. Out of the eight papers presented at this meeting, seven of them dealt in whole or in part with the telephone and its use in railroad work

"Don't depend too much on others. People get tired when called on too much."

When six inches of rain fell in ninety minutes in a Missouri town, the telephone operators, as usual, stuck to their posts and warned the residents in the lowlands, saving many lives. Such instances of heroism among telephone employees are becoming almost commonplace-if saving lives may ever be so modestly termed.

"The strongest pull and the heaviest push in this world are those which you yourself create."

The Illinois Telephone & Telegraph Company -which began a few years ago to furnish automatic telephone service in Chicago in opposition to the Bell-has applied a second time for permission to dispose of its plant. Inability to market its securities is given as the reason for this action.

"Be selfishly independent of, but kindly helpful to others and you cannot help but enjoy life."

Hollow reinforced concrete poles are being successfully manufactured for telephone and telegraph use. Cost and weight-two of the serious problems of solid ones—are being solved by this type. Bending tests are applied before the poles are offered for sale.

"Deliberately and with careful consideration choose your vocation in life and then stick to it. The other man's job looks casier, but it isn't."

To reimburse the Chesapeake & Potomac Telephone Company of New York, the C. & P. of Baltimore has filed an amendment to its charter increasing the capitalization of the Company from \$10,000 to \$10,000,000.

"Don't fall into the error of thinking that in these days there is no opportunity—there is more now than ever."

The Western Union quarterly report ending June 30 shows gross earnings of \$11.824,200.

"Have proper respect for your position, whatever? may be or wherever it is. We are all of us units in the social structure, and each in his or her own particular position is an important unit."

A new telephone cable is to be laid shortly between Marseilles in France and Algiers in northern Africa, according to the Annales des Portes. Télégraphes et Téléphones. The core will consist of seven copper strands, each 0.8 mm. in diameter, with three layers of gutta-percha, weighing in all 52 kg. per (nautical) mile. The resistance will be 9.20 ohms and the capacity 0.35 m.f. per mile, and the insulation resistance megohms per mile.

Atlantic Coast Division~ JRANDERSON, Division Correspondent

Camden District

A Camden County subscriber recently addressed this Company a communication in part as follows:

"Will you please tell me by what authority the Telephone Company cut up a fine shade tree on the front lawn of my house at ———?

"I would not have taken a hundred dollars for that tree and your men have cut off all the limbs up to within a few feet of the top.

"My husband notified your man verbally and I gave written notice that you were never to take the liberty to cut that tree without permission; I had the house built there because that oak was the only tree of its kind on my lot.

"I expect you to pay one hundred dollars for your damage and shall take action against you unless you do it pretty quickly.

Before an investigation could be even started a second letter was received from the same subscriber as follows:

WRIGGINS.

Dover Sub-District

The following letter received from a subscriber in a rural district where the line had not been extended, but on which we were working at that time, shows the need for telephone service; also that sometimes "the worm will turn" and cease to be imposed upon.

The line in question was hurried to completion.

July 29, 1913.

Telephone Office,
——, Del.

Gentlemen:—I hereby have to make the request to take out of my house the telephone, if the Telephone Company does not extend this line to——, because I am a farmer, a private man, who has to attend to his business and cannot be the servant of this entire peninsula.

I am always ready to favor my neighbor but cannot favor all the people all the time.

An excellent man, a good neighbor, used my telephone since Saturday, July 26, up to Tuesday morning, July 29, nine or ten times. It happened that three different parties waited in line at my house to use my telephone. A man called me out of bed at midnight (he had driven five miles—back, ten miles) to use my telephone.

A neighbor died and its costs me money to notify the relatives.

I am like the fire engine man, have to be ready always, but I have now to stop! I have not the time to spare to watch and do not want to know the people or the people's business. On account of that, my friends (my telephone friends) may call San Francisco at my expense and I not know it.

I do not have to spare any money to pay my friends, or be responsible for my friends' talks or deeds.

Stop! Please! Take out my telephone August 1, so I can have a little vacation.

Yours for mine but not for other people's business.

PRINCE.

West Chester District

A subscriber making a call told the operator to speak louder, as she (the caller) had had all her teeth pulled out and was going to have false ones. Some people evidently hear through their teeth.

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GREENFIELD.

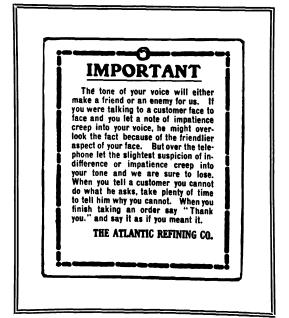
Wilmington District

The following article recently appeared in a New Castle (Del.) paper:

"The telephone exchange operators of the Diamond State Telephone Company in this city are being praised for their efforts to give the best possible service to the patrons of the lines. In case of trouble the operators go to considerable pains to try and rectify it and are solicitous for the welfare of their callers."

It was published as a result of the operator, Miss Mitchell, following up a case of trouble on a subscriber's telephone. The subscriber reported the telephone "O.D." to the operator, who reported it promptly. Repairs were made, but the telephone went "O.D." again. The operator followed it up for the subscriber until permanent repairs were made.

CHAMBERS.



Card attached to telephones of one of our subscribers

New Jersey Picnics

By G. B. Garwood

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Consequently, on June 21 the same fourteen employees left Trenton at 5 P.M. in an automobile truck and drove to Edgewater Park, N. J., where they were to have supper on the lawn. Due to a rain, however, in the afternoon, it was necessary to have their picnic supper on the porch. After supper all enjoyed dancing to the music of a Victrola before the twenty-two-mile drive home.

In spite of the rain, this outing was such a success that another was immediately arranged for July 4. That developed into an all-day motor boat trip down the Delaware River to Philadelphia, with supper at Burlington Island Park as the most important event of the return trip. This party included one additional employee of the Telephone Company and his wife for chaperon, inasmuch as several young women were present.

A Three-Day Trip

By R. S. Crist, Trenton Wire Chief

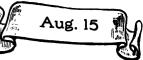
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The following day I started on routine work feeling "bully" after this combined motorcycle and fishing trip and am eagerly looking forward to the next opportunity.

Army bayonets now form part of the forest-rangers' emergency telephone outfit used chiefly in fighting fires. This emergency line consists of small instruments and a coil of fine copper wire. The wire is attached to the nearest telephone line, the bayonet is thrust into moist ground at the other end, and with the circuit thus completed the ranger can talk with headquarters, report his position, and summon fire-fighters if necessary.

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Vibrations

[The italicized quotations in these columns are from an address by Mr. Theodore N. Vail to graduates of the Lyndon (Vt.) Institute and Lyndon School of Agriculture.

The Pennsylvania Legislature has created a new public utilities commission consisting of seven members.

"It is from your failures and your disappointments, if rightly used, that you will get your valuable experience. It is by overcoming and rising above them that you will achieve your successes."

The biggest-ever field day was held by the New England Telephone & Telegraph Company, August 9, at Point of Pines, Revere Beach—the Coney Island or Willow Grove of New England.

"Labor performed in a shiftless, unthinking, unintelligent, instinctive way is neither dignified nor noble and never is profitable."

The first telephone conversation has been held between London and Berlin. The distance between the two cities is 700 miles and the line includes 60 miles of submarine cable.

"Do not confound labor directed by intelligence with expert or skilled labor, which may be performed in a wasteful, unintelligent, perfunctory or instinctive way."

Pennsylvania has numerous service line companies, one of which is credited with special operating difficulties. Of fourteen subscribers served by this line, twelve are named Myers, several of whom have the same Christian name.

"The best-kept house is that of a housewife who never seems to be busy or in a hurry. If you want anything done promptly, go to a busy man."

Mr. M. C. Rorty, formerly our Division Manager, Pittsburgh, and more recently Commercial Engineer, A. T. & T. Company, New York, has become manager of joint telephone arrangements for the Western Union Telegraph Company. Mr. Rorty's wide telephone experience makes his recent appointment most fitting and of decided interest to our employees.

"All the great and permanent gains in this world come through constructive work, creating new values to old things by making them better and more useful, by creating new things of value to the world, or by the organization of those forces which bring about these results."

With Connie Mack showing his heels in the American, the Phillies runner-up in the National, Wilmington leading the Tristate, and Wilkes-Barre crowding first place in the New York State League, there's material for quite a ball team tucked away in the territory of the Bell of Penna. "unit."

"Remember that it doesn't take any longer, if as long, to do a piece of work when it should be done than it does to do it after it should have been done, and, besides, when done in time it is much more effective."

Since Mr. T. N. Vail became President of the Western Union in November, 1910, the number of that company's offices has increased from 25,000 to 67,000 and is still rapidly gaining.

"Determine what you want to do, then acquire an understanding of all that is necessary to accomplish it most profitably and efficiently, then go about the doing of it in an orderly and effective way."

The non-listed telephone is shortly to be made a subject of inquiry before the Railroad Commission of the state of Wisconsin. It is being argued that the Telephone Company should not, even at the express request of the non-listed subscriber, deny connections with that subscriber's telephone, the number of which is unknown to the calling party, as each subscriber is entitled to the use of every telephone of the system.

"It doesn't take any longer to earn a dollar before you spend it than it does to earn it after it is spent, and, besides, if you have it in hand you are apt to spend it more wisely."

Portland and Middletown, Conn., were recently substantially connected by the laying of a submarine cable across the Connecticut River. The reel, weighing 51,400 pounds, was the largest ever shipped to the Southern New England Company. It carried 1675 feet of 100-pair, 19-gauge armored submarine cable three inches in diameter.

"Wait for luxuries and even comforts until you can pay for them and you avoid the discomforts of the future pay-day."



In the Portland (Oregon) 1913 Rose Festival—an annual event of interest—the Pacific Telephone and Telegraph Company was awarded two silver cups for decorated automobiles which participated. The car here reproduced was hidden with yellow Spanish iris, yellow lupin, gaillardias, blue larkspurs, ferns and maple leaves. Blue bachelor-buttons covered the bells. Six cups have been won by that company in similar events within two years.

"Don't fall into the mistake of forming your own opinion of your own intelligence or capacity—let others do that. It is only in politics that your own claims to your own greatness are taken seriously and where promises will be taken sooner than a good record. In real life it is reputation that obtains confidence for you, and reputation is based on performance; not on promise."

In striking contrast to the vertical panels of the telephone switchboards of the modern American exchange is the horizontal arrangement of many switchboards in Germany. The operators sit at both sides of the switchboard, and in front of each, at the edge of the board, are the plugs and keys used in operating. The horizontal board affords a ready surface for the accumulation of dust, making the constant use of vacuum cleaners a necessity.

"Remember if others have push or pull it is because of some force they exert through some reputation they have created."

It is said that the abandoning of physical telegraph lines to some large central African mines

has worked a hardship on the natives. They had been accustomed to appropriate the telegraph lines for ornaments and weapons. Wireless equipment will raise the living cost among admirers of these dusky belles.

"Don't get into the habit of being unfortunate."

The important part the telephone is playing in the operation of railroads is indicated by papers presented at the last annual meeting of the Association of Railway Telegraph Superintendents. Out of the eight papers presented at this meeting, seven of them dealt in whole or in part with the telephone and its use in railroad work.

"Don't depend too much on others. People get tired when called on too much."

When six inches of rain fell in ninety minutes in a Missouri town, the telephone operators, as usual, stuck to their posts and warned the residents in the lowlands, saving many lives. Such instances of heroism among telephone employees are becoming almost commonplace—if saving lives may ever be so modestly termed.

"The strongest pull and the heaviest push in this world are those which you yourself create."

The Illinois Telephone & Telegraph Company—which began a few years ago to furnish automatic telephone service in Chicago in opposition to the Bell—has applied a second time for permission to dispose of its plant. Inability to market its securities is given as the reason for this action.

"Be selfishly independent of, but kindly helpful to others and you cannot help but enjoy life."

Hollow reinforced concrete poles are being successfully manufactured for telephone and telegraph use. Cost and weight—two of the serious problems of solid ones—are being solved by this type. Bending tests are applied before the poles are offered for sale.

"Deliberately and with careful consideration choose your vocation in life and then stick to it. The other man's job looks easier, but it isn't."

To reimburse the Chesapeake & Potomac Telephone Company of New York, the C. & P. of Baltimore has filed an amendment to its charter increasing the capitalization of the Company from \$10,000 to \$10,000,000.

"Don't fall into the error of thinking that in these days there is no opportunity—there is more now than ever."

The Western Union quarterly report ending June 30 shows gross earnings of \$11.824,200.

"Have proper respect for your position, whatever is may be or wherever it is. We are all of us units in the social structure, and each in his or her own particular position is an important unit."

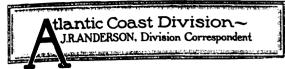
A new telephone cable is to be laid shortly between Marseilles in France and Algiers in northern Africa, according to the Annales des Portes. Télégraphes et Téléphones. The core will consist of seven copper strands, each 0.8 mm, in diameter, with three layers of gutta-percha, weighing in all 52 kg. per (nautical) mile. The resistance will be 9.20 ohms and the capacity 0.35 m.f. per mile, and the insulation resistance 300 megohms per mile.











Camden District

A Camden County subscriber recently addressed this Company a communication in part as follows:

"Will you please tell me by what authority the Telephone Company cut up a fine shade tree on the front lawn of my house at -

"I would not have taken a hundred dollars for that tree and your men have cut off all the limbs up to within a few feet of the top.

"My husband notified your man verbally and I gave written notice that you were never to take the liberty to cut that tree without permission; I had the house built there because that oak was the only tree of its kind on my lot.

"I expect you to pay one hundred dollars for your damage and shall take action against you unless you do it pretty quickly.

Before an investigation could be even started a second letter was received from the same subscriber as follows:

"Please accept apologies for my letter of yesterday. I have just learned that the idiot who rents my house at ---- cut the tree because the 'shade is unhealthy.' I may add that he has trimmed it so successfully that the Telephone Company will never again have that trouble.

WRIGGINS.

Dover Sub-District

The following letter received from a subscriber in a rural district where the line had not been extended, but on which we were working at that time, shows the need for telephone service; also that sometimes "the worm will turn" and cease to be imposed upon.

The line in question was hurried to completion.

July 29, 1913.

Telephone Office,

–, Del.

Gentlemen:—I hereby have to make the request to take out of my house the telephone, if the Telephone Company does not extend this line , because I am a farmer, a private man, who has to attend to his business and cannot be the servant of this entire peninsula.

I am always ready to favor my neighbor but cannot favor all the people all the time.

An excellent man, a good neighbor, used my telephone since Saturday, July 26, up to Tuesday morning, July 29, nine or ten times. It happened that three different parties waited in line at my house to use my telephone. A man called me out of bed at midnight (he had driven five milesback, ten miles) to use my telephone.

A neighbor died and its costs me money to notify the relatives.

I am like the fire engine man, have to be ready always, but I have now to stop! I have not the time to spare to watch and do not want to know the people or the people's business. On account of that, my friends (my telephone friends) may call San Francisco at my expense and I not know it.

I do not have to spare any money to pay my friends, or be responsible for my friends' talks or deeds.

Stop! Please! Take out my telephone August 1, so I can have a little vacation.

Yours for mine but not for other people's

PRINCE.

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IMPORTANT The tone of your voice will either make a friend or an enemy for us. If you were talking to a customer face to face and you let a note of impatience creep into your voice, he might overlook the fact because of the friendlier aspect of your face. But over the telephone let the slightest suspicion of indifference or impatience creep into your tone and we are sure to lose. When you tell a customer you cannot do what he asks, take plenty of time to tell him why you cannot. When you finish taking an order say "Thank you." and say it as if you meant it. THE ATLANTIC REFINING CO.

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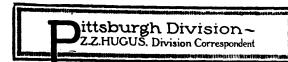
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Johnstown District

Salesman J. H. Leppert, Johnstown, has secured an application from the Dividing Ridge Telephone Company. This line, which carries eight stations and formerly connected with the opposition company, will be served from our Ebensburg exchange.

Local Manager Sarver of Johnstown has obtained an application from the Jenners Mutual Telephone Company, operating fifty telephones in Jenners and Quemahoning townships, Somerset The subscribers of the Jenners County, Pa. company will receive service through our Boswell exchange.

In selling business in Cresson one of our salesmen met a business man who had signed an application for opposition service, and the telephone had not been installed when promised. As he was very anxious for service in order to get baseball scores from Johnstown, he made application for "Bell" service, and the Plant Department had his telephone working one hour later.

Pittsburgh District

A Pittsburgh railroad employee living beyond the calling limits had been depending for his telephone service upon his next-door neighbor, having given the latter's telephone number to the railroad company as the one through which he could be reached.

The neighbor recently took a vacation and, in having his telephone service temporarily disconnected, deprived the railroader of this means of being called.

The latter promptly signed an application for service and asked his superiors for a week's leave of absence rather than run the risk of being penalized for living beyond the calling limits without telephone service.

Unfortunately it was necessary to place some new construction to reach him and he became so anxious for the service that, rather than lose the time which the construction would have entailed, he moved to a new location where the telephone installation could be made without delay.

An applicant for admission to the Operators' School, when asked whether she thought she would like the work, replied that she didn't know as she "had never worked in a factory before!" The term "operator" had misled her.

Uniontown District

A young lady on her way from Wheeling to Mt. Chateau to spend her vacation, experienced the misfortune of having the porter give her the wrong suit-case as she left the train at Fairmont. She did not discover the mistake, however, until after the station had been closed. She remembered seeing a woman pass her shortly after her arrival at Fairmont, carrying a suit-case very much like her own. Not knowing the stranger, but being acquainted with the person with whom she talked, she decided that the telephone would be her best aid at this critical time and began her endeavors to locate the desired party. She was at last brought in touch with the stranger who had been given her suit-case. The two women were overjoyed when the telephone calls located

their belongings, as both were carrying all their jewelry in their suit-cases.

A public telephone was being installed in one of the drug stores in Clarksburg, W. Va., and the outside sign had been placed before the station was installed. The sign had not been up two minutes when a man walked in the store and asked to use the Bell public telephone.

A woman in Connellsville called for her husband's office. When the operator asked if he had answered, the subscriber replied, "Not yet, but he will in a minute, for I can hear him walking across the floor to the telephone." It was evidently an uncarpeted floor.

Application has been signed by the Dunbar Furnace Company, Dunbar exchange, for P.B.X. service with two lines and eight stations. supersedes three lines with four stations (Bell) and four opposition stations. The application was taken by Mr. Simpson, Agent.

One of the Uniontown rural subscribers, while working in his cellar the other day, broke the ground wire from the protector on his telephone. Undertaking to repair the trouble himself, he put the ground wire on the line post, and as a result fourteen other subscribers were put out of service.

Underground cables are being laid on one of the principal business streets of Uniontown while the street is being repaved. A line of conduits containing eight ducts is being laid, into which six cables will be drawn. Each time a street is torn up in the business section advantage will be taken of this condition and underground cables will be laid.

How a little ingenuity will often land a sale is shown by the following incident:

A Morgantown salesman was canvassing a local real estate man who did not have Bell service. After selling the man space for a doublecolumn margin advertisement in our new directory, the salesman in an indirect way told the man that less benefit would result from the advertising unless he installed Bell service. After a few minutes' talk, in which he convinced the real estate man of the truth of his remark, the salesman went away with a broad smile on his face and two signed applications in his pocket, one for an individual line telephone service, and the other for a double-column margin directory advertisement. This man has been visited on an average of once a month for the past two years as a prospect for telephone service.

Heavy storms have visited this district, especially the West Virginia section, within the past two weeks and caused considerable damage to our cable plant. In some towns not a day has passed without a heavy storm.

MISS HEPPLEWHITE.

Wheeling District

The spring flood at Marietta was followed by many telephone troubles along the Muskingum To obviate future similar happenings the toll lead was moved from the river bank to the hills.

After the toll lead was erected, cable was ordered from the Western Electric Company to take the place of three full arms of wire for a distance of 7500 feet. This cable was shipped July 8. In the meantime a severe storm visited Marietta, and the Muskingum rose ten feet in

one hour, washing out ten miles of Pennsylvania The cable did not get into Railroad track. town, and, when located, District Line Foreman Thrall had it forwarded via Cambridge to Wheel. ing and then to Marietta, where it arrived Saturday, July 26, at 9 A.M. For three and a hali miles it was hauled through fields, with the mud in places hub-deep. When it arrived on the ground, work began at once. The men carried sandwiches with them and a lunch was eaten as they worked. At one point it was necessary to let a reel of cable down a hill with ropes. All of the 7500 feet of cable was pulled in and partially spliced by seven o'clock Saturday evening Sunday morning the men were again at work and at five o'clock in the evening 75 farmers were again receiving service, with all lines O.K.ed The subscribers on this line are market gardeners. largely dependent upon their telephones for the conduct of business, and extreme measures were resorted to in puting through the work.

Mr. M- wrote from Boston canceling his telephone contract. Following is his reply to our Steubenville Manager's letter:

'My letter to which you refer was certainly not intended for your company. The mistake came about through my confusion of names, and I trust you will pardon me. It should have gone to the other company. My Bell service has been very satisfactory and I intend to continue it. I inclose a check to cover account while I am away; will be home in August.'

Engaged in the purchase and sale of lumber, - made his sales entirely through salesmen, believing that the most efficacious way.

A telephone, its advantages and economies, was brought to his attention. In a recent conversation with the Local Manager, he remarked that in one week he had sold outright over his Bell telephone more than three hundred carloads of lumber and had not only saved the time and expense of a salesman, but to his positive knowledge fifty per cent. of the business so received would have gone to his competitors had he not been the user of a telephone. They were persons in a hurry who would not have waited for a letter to go and a salesman to visit them.

Bethany, W. Va., the home of Bethany College, received telephone service over a service line connected with our Wellsburg exchange. There were 19 subscribers receiving service along the route of the line.

Special Agent Healey, in conversation with Professor Cramblett of the college, arranged for and carried through a traffic agreement which provides the town with equipment for 100 stations. Our Plant people have completed the work and the new Bethany company is supplying service to 75 subscribers.

Our Operators Find Them

Here are three toll stories, forwarded by our Wheeling correspondent, all to the credit of tw Wheeling (W. Va.) operators, Misses Stark and Le Jenne.

Although perhaps in the strict technical sense they are not emergency calls, that there was need of quick action is apparent. Special effort in suc cases is bound to win appreciation from those s served. A letter in connection with one of the stories voices the esteem of its author.

One day about 1:40 P.M., a call was fee ceived from Warwood, the subscriber calling M T. at Wellsburg Wellsburg Supervisor reported

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placed and completed.

that Mr. T. had no telephone. This call was intended to delay a funeral schedule for 2 P.M., until a son en route from California could arrive. Wheeling then asked for the undertaker's residence. The subscriber's residence was reached and the report received that he had just started for the funeral, which was to be in about ten minutes. A messenger was sent and Mr. T. located just in time to hold the service. Fifteen minutes elapsed between the time the call was

One Saturday lately, a boy riding on a passenger coach was struck by a bridge and killed. At 1:45 P.M. an undertaker called the boy's father, a Mr. W., superintendent of a coal mining company in Cumberland, Md. The Wheeling subscriber could not say whether the mine was in or near Cumberland. Cumberland reported that the person called had no telephone and was unknown; also the mine was unknown. Wheeling was interested in the call, and after hearing the details, Cumberland too was anxious to do what she could to find Mr. W. A number of persons were called in Cumberland, hoping someone might know of the mine; then several were called at Frostburg, Md., one of whom was acquainted with Mr. W. and said he would be glad to go after him but it would take some time as his residence and the mine were quite a distance from the city. An automobile was secured and in three quarters of an hour Mr. W. was in touch with Wheeling.

Woodsdale called Mr. P. at Senator D.'s residence, Elkins, W. Va., at 3:30 P.M., recently. It was of great importance to reach Mr. P. before he left for New York City.

Elkins reported that he had just left on a train for Grafton. Grafton was called and our Traffic Chief asked to meet the incoming train from Elkins. Mr. P. was not aboard.

Elkins was again called, and this time reported that Mr. P. also expected to stop at Cumberland. A call was placed for the different hotels in Cumberland and the report came back, "Not registered"

Again Wheeling tried, this time calling the Cumberland railroad stations, with a request that the agents watch for incoming Elkins trains, and if a man answering Mr. P.'s description got off, to have him call Long Distance. At one station a train was due at 8:55 and the agent promised to watch for it. In the meantime the Wheeling operator went off duty. At 9 P.M. a call from Cumberland advised that the person wanted was ready to talk.

In addition to remarking that through no other channel than the Bell telephone could she have reached her husband that day, Mrs. P. has written the letter which follows:

Wheeling, Fairfield, W. Va.

Dear Mr. Wood:

Through you, I want to thank the Long Distance operators who did me such fine service last night. It was very important that I get in communication with Mr. P. I called him at Elkins, but found that he had left there for New York. I did not know where or by what route. I told Miss Miner my troubles and she and her able assistants located Mr. P. and had me in communication with him upon his arrival at Cumberland. Such service should surely be acknowledged, and I want to express my appreciation and thank each and every one who helped to render it.

Very truly, — ______

The Transposition Club

A radical departure from the usual custom of the Transposition Club resulted in a most en-

joyable function at Hotel Schenley, Pittsburgh, on the evening of July 23.

During the three years in which the club has been in existence there has not, previous to this time, been any meeting at which women were present. It was concluded that a dinner be given in their honor, and the occasion was certainly a delightful one.

Dinner was served in the "Green Room" of the hotel at 6:30; and afterwards the concert of the Pittsburgh Festival Orchestra on the lawn of the hotel was heard.

For the women guests there were corsages of sweet peas. The banquet room was tastefully arranged and the table decorations consisted of hydrangeas and gladioli.

Those present were Messrs. and Mrs. Bates, Bishop, Dunn, Geddes, Griffith, Hester, Martin, Moore, Peyton and Wilder; Misses Donlin and McGowen; Messrs. Brown, Clune, Gillespie and Lawlor.

Chief Operators' Conference

The Johnstown (Pa.) District Chief Operators were in conference July 25 in the office of Mr. J. A. Collette, Traffic Supervisor. Those who attended were from South Fork, Cresson, Ebensburg, Barnesboro, Windber, Beaverdale, Nanty Glo, Bolivar, Dunlo, Portage and Patton, as well as three young women from Johnstown.

Changes of pronunciation of the numbers "three," "five" and "nine" were emphasized together with the shortening of certain phrases used frequently.

Other matters discussed were the handling of circuits to busy points and to points affected by storms. Welfare subjects were also considered.

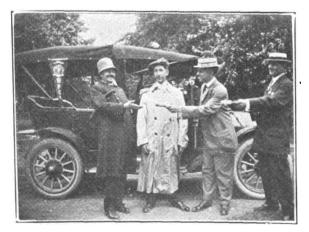
The Chief Operators were the guests of the Company at a luncheon at the Crystal Café.

The meeting closed at four o'clock, and the Johnstown day and evening Chief Operators took another hour to show the methods used in an office the size of Johnstown.

My Vacation Trip

By F. S. Moran, Local Manager, New Kensington, Pa.

HEN it comes to taking a pleasant vacation, I really believe that I had the most enjoyable one of any of the employees connected with our Company. I was invited by one of the New Kensington subscribers to accompany him and two other friends on a trip to the Elks' Convention at Rochester, New York, in his automobile. I immediately accepted the invitation, and feeling that we were



Mr. Moran Bribing the "Policeman" (Note monkey on top of car)

out for a jolly good time, I suggested that we secure a pet monkey and a policeman's uniform. These I considered sufficient to make the trip enjoyable and humorous, and I afterwards found that I had made no mistake. All along the route the monkey attracted large crowds by his clever antics, and the many laughs that we got from watching others enjoy the monkey's actions more than repaid us for the small outlay of money; while the policeman's uniform was also the cause of much merriment.

We left New Kensington on Sunday, July 6, and our route took us through Butler, Slippery Rock, Grove City, Mercer, Greenville to Conneaut Lake, where we stopped for dinner and enjoyed a little dip in the waters of that beautiful We then proceeded to Conneautville, Springboro and Shadeland, where there are 1600 acres covered with the finest shade trees we ever had the pleasure of looking at. This place would be a beautiful spot to camp. After a short stop and a trip to the stock farms owned by Powell Brothers, we proceeded to Erie by way of Albion and Girard. As the Perry Centennial was going on in Erie, we stopped overnight and witnessed with great pleasure the beautifully decorated city. We retired about 10 P.M. and arose promptly at 4:30, leaving Erie at 5:57, taking the lake road. On our way to Buffalo we passed through Harbor Creek, North East, Ripley, and then taking a breakfast at the Portage Inn at West Field, New York. We then proceeded through Brockton to Fredonia, where we had a good deal of fun arresting two friends for a crime that they knew nothing about and of which we knew much less. After the joke was "exploded," the "criminals" enjoyed it immensely.

We then proceeded to Buffalo, where we experienced our first case of trouble, a small blowout. Our party took in the city of Buffalo, attending the International League baseball game, where the first thing that appealed to us was a large Bell Telephone sign elaborately displayed in centerfield. We kept "plugging" for one of the players to hit the sign, but it went uninjured throughout the day. After putting in a pleasant evening we retired early and were on our way at 6:03 A.M. for Rochester. We went over beautiful roads between Buffalo and Rochester. The highway patrol from Batavia through Stafford, Leroy, Caledonia, Garbutt and Scottsville compared very favorably with the roadbeds of a high class railroad. We arrived at Rochester Tuesday noon, the Elks' Convention being in full tilt, and our policeman's uniform and pet monkey got right in the limelight, the man who did the officer's stunt being as clever as the monkey. This good-natured humor was kept up here for two days, when we started back over the same road to Buffalo and then on to Niagara Falls, at which place we had the accompanying picture

We left the Falls for Buffalo and then proceeded to Cleveland on the "See and Bee," one of the best boats on Lake Erie. At Cleveland we managed to put in a day and a half looking for things we were unable to find.

The rest of our journey was made over good roads to New Castle, Butler and back home. Through the trip we used the long-distance service to the extent of fifteen dollars, keeping our relatives and friends at home advised from time to time as we proceeded along our journey, and we thus realized more than ever the advantage of universal service.

Incidents in the Early Days of The C. D. Q. P. T. Co.

By Harry B. Foster, Former Inspector No. 1

S is not generally known, The Central District and Printing Telegraph Company, as it was formerly called, is the only such company that started in business before the introduction of the telephone for the purpose of furnishing a private line system for communicating between stations on the same lines and for furnishing also an exchange system through the central office. There were a number of Morse lines leased by the Western Union Telegraph Company to private persons. Some of these were equipped with the old-style paper registers.

When the Gray printer came into use, Mr. T. B. A. David, former Superintendent of the Western Union in Pittsburgh, and others conceived the idea of starting the company for the purpose mentioned, as the printer could be used

by anyone after a short practice.

from their own operating room copies of messages sent and entered the charges and collections. Such Western Union business as came in on the printing devices in tape form was cut into proper lengths and pasted directly on the Western Union blanks.

All employees being from the Western Union forces, the office was run strictly on Western Union lines. Locked messages were counted and checked like through business. The printer could be worked at a speed of twenty words a minute.

The calling was done by repeating the same letter, similarly as on a telegraph line. The letter "A" was the printer call, while "G" was the Morse call. The regular sound soon attracted the operator's attention. After answering it he could leave to watch other signals. Several messages could thus be received simultaneously while the operator walked around among the instruments. The instruments were set on tables of convenient height and were so arranged as to be attended to quickly.

These lines were increased until there were 27 of them, each with a different sound. Often There were two local circuits, both worked by the same battery, as both were never closed at the same time. The pole-changer ran the outside or follower instruments, energizing alternately two sets of coils. There was also an armature with a ratchet to revolve the type-wheel when a key was pressed. This opened the main circuit A relay would then close the press circuit through the local battery, forcing the press up against the type, thus printing that respective letter, This process was continued as long as the keys were being pressed. A hook, working in a worm on the front end of the type-wheel shaft, was pushed back by a spiral spring each time the press came up. When a message was finished. the hook ran out to the end of the worm, stopping the instrument. The main type-wheel made three revolutions—one more than the followers—thus bringing them all in unison.

[Mr. David also took the agency for the Remington typewriter. That machine was then mounted on a table such as was used for sewing machines of the same name. The typewriter was furnished with capital letters. All local messages for city delivery were copied on this typewriter. It aroused interest in our messages because many recipients, thinking that they were printed by telegraph, came to see it all demonstrated. When approached regarding their typewriter needs, they did not respond with orders and the agency

was discontinued.l

First Telephone Subscribers' Line

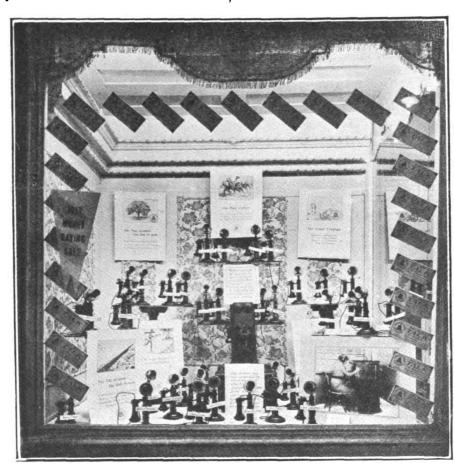
In the autumn of 1877 the first telephone line in Pittsburgh was put into actual service. It was located in the office of the Iron Age, a trade newspaper then managed by Mr. Joseph D. Weeks.

Messages were received and written by hand. just as was other business received in the office. The instrument was equipped with a magneto cell and Dolbear telephones-one set on each end of the line. These instruments were frequently loaned overnight for exhibition purposes at church fairs. Employees usually accompanied them to demonstrate. They were quite a source of revenue. Shortly after the Bell hand telephones or receivers began to come in. These were used in connection with magnetos. Each of these had a small hook switch projecting through the little door. On this hook the receiver was suspended from a small screw eye. Every line had a telephone at its central office end, and such a thing as connecting two lines together was not thought of.

Edison Telephone

When the first Edison telephones came in they were equipped with a button on each side. The left-hand one was used for calling with local battery, while the right-hand one was pressed in to put the battery through the transmitter. It was supposed to be held in while the conversation continued. The subscribers would not have this at all and devised all kinds of attachments to hold it in, thus causing much local battern

The first Edison instrument was tried out from the plant of the Jacobus & Nimick Mfg. Co. on the Pan-Handle Railway about seven mile from Pittsburgh. There a printer line was a service. It was late in the day when it was read The instrument was on the wall in Mr. Davidoffice, and he called the boys in to try it. The could not "believe their ears." While this line was more noisy than anything in the way of induction that they had ever heard, the voice was loud and clear and away above all other sound Mr. David assured them that it was real and that that was what was going to be used in the



Telephone Display in Lancaster, Pa., Store of Messrs. M. T. Garvin & Company (See article on page 8, under Harrisburg District)

Accordingly on May 1, 1874, The C. D. & P. T. Company began with Mr. David as President. Mr. John C. Connor (who had learned telegraphy while acting as deliverer of night press) was operator and Mr. Joseph T. McConnell (now deceased), formerly Night Chief for the Western Union, became general utility man.

Handling Messages

The C. D. & P. Telegraph Company, being in the same building as the Western Union—but on the floor below-acted as a branch office of the latter company. Messages received from telephone subscribers were entered in a standard Western Union register and sent by dummy directly to the operating room. On the other hand, messages received from the Western Union were copied, sent to subscribers, and copies were also taken over to the Western Union bookkeepers on the morning following. In the intervening time, the Western Union bookkeepers received

as many as ten messages were received simultaneously.

A subscriber would call, start to send a message, composing it as he proceeded. If he hesitated at any time, without having made a check, the receiving operator would know that the hesitation was caused by the sender counting the message words.

Where the lines were in proximity, it was common to send a message over one line while it was being received over another. If the sender changed his mind (and wording), however, the operator was compelled to "go along"-i.e., make the necessary changes in his repetition.

Gray Printer

The Gray printer was so constructed that the main instruments (all of which, together with the main batteries, were at the central office) were equipped with an arrangement similar to the polechanger now used for ringing on telephone lines.

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future. While this was going on one of the young men went into the battery room, which was back of the telephone, to see if Mr. Pease (the inspector on the job) was not in there.

Other Equipment

From that time improvements began to come in. The first signals used were equipped with a drop shutter, a battery ringing key and a connecting plate with a plug. This, when at rest, held a cord, the other end of which was grounded. Each of these occupied a space of 21/2 by 5 inches. Twenty of these were mounted in a wooden frame as a starter. One Edison telephone with a pair of cords, one in a ground plate on the frame, (the other free), was mounted on the side wall. When a call came in, the operator walked across the room-about twelve feet-to the board, pulled out the ground cord, inserted the free one, walked back, found out what, not who, was wanted—as who was merely incidental. All kinds of information, local and general, was asked then as it is now of the special information bureaus in our large cities. The operators then were personally acquainted with many of the subscribers who frequently visited the office. If another subscriber, or someone who could be sent for, happened to be wanted, the operator walked over to the board, again pulled the ground cord out of the line—as the calling battery was grounded-called the party, pulled the other cord of the telephone pair out of the ground plate. inserted it in the line of the party called, and walked back to the telephone. Then if no one had been afraid to answer, the operator introduced the talkers and helped out conversation sometimes, whether necessary or not.

Further Methods

If another call happened to come in while this was transpiring, the operator answered as soon as the first connection was finished. There was no way of making connections except through the operator's telephone. This arrangement continued for some time, more operators (recruited from the messenger force), signals and telephones being added as the expansion of the business demanded. By this time there was also an arrangement devised by which Morse and private lines could, by means of many switches located in different rooms, get exchange service; also, when they had luck, get their regular service restored.

Many methods of making connections without the operator in circuit, with and without supervision, were tried with varying success. Everything was new, but the management met every condition as it arose as well as circumstances permitted.

About this time the writer suggested to Mr. McConnell, then Superintendent, the use of a switchboard after the style of the Western Union one, in that the line connections ran horizontally and the instrument connections vertically. Both were familiar with this type. The reply was, "That would take a switchboard twenty-five feet long." Even had this been adopted, the equipment mounted as suggested would have served only about 500 subscribers.

Then came the Blake transmitter, with many different magneto cells, the Jones switchboard, followed eventually by the multiple board and other improvements in construction, as well as telephones and equipment much of which is recent enough to be familiar to those who have been for any length of time employed in the business.

Cosmopolitan Service

The Polish, Hebrew and Italian telephone signs on the windows of several South Philadelphia druggists have been steadily increasing their returns, as a large number of their customers are unable to read English. These signs have in fact directly resulted in many foreigners using the telephone for the first time.

Sometimes it takes an emergency to bring this about, as was shown in a case the other day. It happened that an Italian had engaged a wrecking company to pull down a building which he owned.

several days ago, he immediately went to a drug store with a sign reading "Telefono publico per Qualsiasi Distanza"—meaning "Public telephones for whatever distance." He talked to the contractor over the long-distance wires, with the result that he secured the position in three minutes

It is doubtful, however, if this Italian felt half as grateful toward telephone service as a Pole living in the same neighborhood. Last month there was a railroad accident near Shenandoah which caused the Pole great anxiety, as his brother was employed there. He remembered a Polish sign at Silverman's drug store that he



Some 1904 Telephone Men of Philadelphia and Nearby Counties

An Atlantic City Photograph—1904

1. W. C. Hartranft, 2. W. J. McLaughlin, 3. W. S. Peirsol, 4. C. B. Smith, 5. H. W. Eno, 6. H. F. Ettinger, 7. W. G. Patton, 8. F. M. Compton, 9. J. H. Mehaffey, 10. W. P. Ellis, 11. C. D. Avis, 12. W. H. Gibble

However, in the early morning before the wrecking company arrived, a gang of foreigners appeared and began tearing the building apart, beginning at the bottom. They paid no attention to the threats and warnings of the owner, and he, being unable to find assistance, felt himself helpless to block the work of the trespassers. Suddenly he remembered the telephone booths at Sixth and Bainbridge, and although he had never been inside one, he ran down the street to the drug store. With the aid of the druggist he was able to get in quick touch with the police department. As a result the policemen arrived on the scene and stopped operations just in time to prevent the upper stories of the building toppling upon the crowd. Since that day this Italian owner has been a frequent patron of the drug store's telephone service.

It may surprise some to know that many of these foreigners are often users of toll service. These calls are mostly in the form of congratulations, applications for work, and inquiries about the health of relatives.

For instance, when an Italian saw the Help Wanted advertisement of a Wilmington firm

passed every day on his way to work, and went there to see if this unfamiliar instrument could help him get news as to whether his brother was still alive. When the railroad station at Shenandoah was called and he was assured that nobody had been killed, he was so relieved that he wanted to give the druggist a present.

In another case a Jewish woman had just arrived in Philadelphia from New York, when she read of a Manhattan robbery in one of the Hebrew newspapers. She remembered that she had left the back door unlocked and thought that it must be her husband's store that had been robbed. Her friends told her about the "Yiddish telephone" at Selden's drug store, so she, accompanied by all these friends, went to the drug store and placed a call for her husband. Due to the great excitement at both ends of the wire the call was about three times as long as necessary. When the husband had finally convinced her that his store had not been robbed, she told him about the unlocked door and hung up the receiver. Although they had dropped \$1.50 into the coin-box, she and her friends, judging from appearances, seemed to think that the removing of the mental strain had been fully worth it.

Mr. Charles Reutlinger **Engineer of Outside Plant**

HARLES REUTLINGER, who became our Engineer of Outside Plant, August 1, 1913, was born in Philadelphia in December, 1871. His early schooling was followed by a course at the Central Manual Training School. After graduation, in 1889, he continued with a year's post-graduate course and six months' further work there as laboratory assistant.

Mr. Reutlinger spent one year in the employ of Queen & Company, Philadelphia, and then

took an Electrical Engineering course at Johns Hopkins University, Baltimore, graduating in 1895.

The first employment which our present Engineer of Outside Plant entered with a public service company was with the Railways Company of Baltimore as power house electrician. those duties were added that of testing overhead feeders and rail returns as well as the tests of railway motors for new cars.

In June, 1898, Mr. Reutlinger resigned the latter position to accept one with the Chesapeake & Potomac Company at Baltimore, as special inspector on electrolysis. Later he became assistant to Mr. B. Stryker in Baltimore, who was then supervising maintenance work. During the following year Mr. Reutlinger had charge of the installation of the C. & P. Company's first common battery switchboard—that in the Madison central office in Baltimore.

With the reorganization of the Chesapeake & Potomac Company in 1901, Mr. Reutlinger was appointed Construction Engineer in charge of Maryland and the District of Columbia. In February, 1904, during the Baltimore fire, Mr. Reutlinger saved the Company's Plant Department records, transferring them to the newly opened Mt. Vernon central office. While the St. Paul central office was still in flames, pairs were cut through on bridged trunk cables and service was furnished outside of the

In 1905, when the Construction and Maintenance Departments were combined, the territories of Maryland and the District of Columbia were separated. The work of supervising construction in Baltimore and Baltimore Suburban as well as that of maintenance in the western end was added to the duties of the Construction Engineer.

When the Chesapeake & Potomac Company became more closely associated with the Bell of Pennsylvania in 1909, Mr. Reutlinger was made Supervisor of Baltimore Suburban and of Maryland Elsewhere territories.

in 1910, Mr. Reutlinger was transferred to the Harrisburg Division as Plant Engineer. This position he occupied until August 1, 1913, when he became Engineer of Outside Plant of our Companies, succeeding Mr. S. P. Grace, who recently resigned to engage in other business in Pittsburgh.

Employees' Beneficial Association Dissolved

The Central District Telephone Company Employees' Beneficial Association, after existing for fourteen years, during which period it has been a source of pride among the Bell Telephone employees of Pittsburgh and vicinity, has been dissolved. The Court of Common Pleas of Allegheny County handed down a decree of dissolution on July 30, 1913, by which the treasurer was authorized to distribute the



Mr. Charles Reutlinger

funds on hand to the members of the association. The amount paid out for benefits during the life of the association is as follows:

Sick and disability benefits.....\$29,898.34 Death benefits 4,300.00 Total\$34,198.34

The members of the Executive Board and Trustees who were authorized by the unanimous consent of the members to close the affairs of the association and surrender the powers of its charter were: P. G. Reynolds, President; R. C. Hollister, Vice-President; E. G. Brown, Treasurer; M. McC. Copeland, Recording Secretary; Miss M. E. Mercer, Financial Secretary. C. W. Moister, Miss A. A. Coyne, J. H. Boeggeman, S. P. Grace and D. Leet Wilson were the trustees.

Organization Changes

The Central District Telephone Company

A. C. Lawrence has been advanced from clerk to Specification Writer, New Castle District. W. E. Ziegler, formerly Wire Chief, is now Plant Wire Chief, Greensburg District.

W. S. Lindsay is now Supervisor of Rights of

Way, Pittsburgh District.

E. E. Thornton has been advanced from splicer to Cable Foreman, New Castle District. J. J. Koch, formerly Special Inspector, is now Inspector of Outside Plant, Pittsburgh District.

James Adair, formerly Switchboard Inspector, is now Wire Chief, Pittsburgh, Pa.

Miss Bessie Gray, formerly operator, is now Assistant Cashier, Johnstown, Pa.

Clyde Smith, a substation installer. Cedar central office district, Pittsburgh, has been made P.B.X. installer, Grant central office district, Pittsburgh.

The Bell Telephone Company of Pennsylvania

To succeed Mr. Reutlinger. announced in another column, A. S. Schultz, who since February 13, 1911, has been Harrisburg Division Equipment Engineer, has been made Plant Engineer, Harrisburg Division.

L. C. Gainor, Equipment Inspector, Philadelphia, has been made Equipment Engineer, Harrisburg Division.

R. J. Snyder, Jr., formerly clerk, has been made Collection Agent, Atlantic Coast Division Manager's office.

W. J. Jennings, Directory Advertising Salesman, has been transferred from Philadelphia to Pittsburgh.

W. C. Graffen, Rights of Way Assistant, has been transferred from Camden, N. J., to Jenkintown, Pa.

F. L. Holly, formerly a collector, is now a salesman at Scranton.

C. R. Lierer, a draughtsman. has been appointed Specification Writer, Eastern Division, Plant Department.

La Bar F. Lambert, formerly messenger in the Commercial

Department, Philadelphia, has been made a clerk in the office of the General Superintendent of Plant.

Accident Through Thoughtlessness

An instance of playfulness which resulted in an accident is here recited. A messenger was carrying soldering irons from one floor to another in a central office building. Thinking that a worker was alert, he threw the iron, saying. "Catch!" The man at whom the tool was dimensional building. rected had not been paying attention to the messenger and knew nothing of what was expected of him until the point of the iron stuck in his shoe. Result, an injured foot through plain foolishness.

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SUPPLEMENT TO THE TELEPHONE NEWS

supply, it is difficult to understand why the sale of such an unhealthy product as this should be allowed.

No greater or more practical charity could be inaugurated than the establishment throughout the tenement house districts of depots where pure and refreshing fruits, drinks and ice cream could be supplied at a low cost in order that they may take the place of those now purchased from the street vendor.

Pure Milk

While this article does not admit of sufficient space to discuss in detail the selection and care of milk, particularly during the warm weather, it must be said that no article of food is so vitally important as this to mankind, particularly to the young, and there is no food which is more unfavorably affected by the heat. Therefore, every possible means should be taken to secure milk in its best and healthiest condition. "Dipped" milk, or that which is dispensed from cans in the various stores should never be used, for the receptacle is opened whenever a purchase is made and probably many times besides; therefore, bottled milk should be used instead, for although it costs more, the protection it affords really in the end constitutes a matter of economy. Milk should always be kept close to the ice in order that the growth of bacteria may be prevented.

During the summer and in the presence of suspected danger, milk may be boiled or Pasteurized; while the former is quite certain to destroy all germs which may be present, it renders less valuable some of the nutritious constituents of the milk, and therefore, for prolonged use Pasteurization is employed. This refers to the treatment of milk by subjecting it to a temperature of 150 degrees for 20 minutes, then placing it on the ice. While this temperature does not injure the constituents of milk, as occurs in boiling, it will render harmless the germs of tuberculosis and other forms of bacteria. This simple method may be carried out as follows: The bottles containing the milk, properly sealed, may be placed in a pan of water, the latter being raised to a temperature of 150 degrees (Fahrenheit) and kept at this point for twenty minutes. The bottles are then to be removed and placed close to the ice. As a matter of economy so far as the ice is concerned, the temperature of the milk may first be lowered by subjecting the bottles to a flow of cold water.

The use of powders or other mixtures which may be advertised as preservatives of milk should be avoided, for they cannot be depended upon and may do considerable harm.

Hot Weather Drinks

There is an urgent call for fluid on the part of our system during hot weather for, as it has already been stated, the skin is constantly abstracting from the blood large quantities of water which must be replaced, and therefore, the question of summer drinks is a matter of considerable concern. Water is the most valuable agent for this purpose, for it is the natural drink, is most satisfying, and should be freely taken. Iced water moderately used, chiefly between meals, is not only not injurious but helpful. for it supplies the need of fluid and aids in reducing the temperature of the body. The so-called "soft" drinks are of value provided they are not adulterated, but unfortunately, this only too often occurs, principally because there is not proper supervision over their manufacture. The excessive use of alcohol contributes largely to the uncomfortable or serious conditions which occur in hot weather, for it is commonly those who use alcoholic drinks in large quantities and of bad quality who first succumb to heat prostration.

Exercise is Necessary

Another very important means of avoiding the unpleasant results of hot weather is to keep the bowels properly open, for if this is attended to, there is less danger of the absorption of poisonous products from the intestinal tract, and the temperature of the body is kept under better control. An occasional dose of Rochelle Salts or one of the other saline laxatives which do not irritate the stomach or the intestinal tract is a helpful agent in this direction.

Some exercise is not only healthy but necessary, even in very hot weather, unless a person is suffering from some organic disease or some other debilitating physical condition which contraindicates it. However, judgment should be used in selecting the form of exercise.

Strange Ideas of Relaxation

A vacation is a very important aid in preserving a good physical condition during the summer, but a large part of the population of a city cannot enjoy this pleasure and must depend upon some form of night or day entertainment and relaxation. Unfortunately, the great mass of people in this country do not select the recreation which is of most value to them. In this we are far behind European countries, for there they secure the most suitable and valuable means of rest and comfort at the minimum cost. Observing foreigners as well as others who have watched the struggling mass of humanity who daily visit our various seaside resorts and who with little children are packed in crowded cars, both coming and going, and while at these resorts are encouraged at every point to eat improper food and take alcoholic drinks, and who return home at night, tired, sunburned and irritable and at considerable expense,—cannot quite understand what benefit is derived from this form of socalled pleasure.

A Day's Outing

The more quiet inland places should rather be selected for a day's outing. While sea air has its advantages, but little is derived from it in a day's excursion, particularly when the weather is hot and there is a constant exposure to the direct rays of the sun. There are many inland places which provide shade, quiet and a lower temperature and an abundant supply of good drinking water, the latter being a very important consideration. A luncheon taken from home offers far more pleasure than the purchase of food of a questionable character. These conditions offer a better opportunity for rest and recuperation.

Resisting Power

The lesson we should learn from what has been said regarding the heated term, as it is called, is not that it is to be regarded as an evil which can be dealt with only by change of diet, rest, etc., but rather that the summer months constitute the normal climatic conditions of a certain season of the year and that it is not intended we should unduly suffer if we properly prepare ourselves for it. In other words, we must so far as possible keep ourselves in good physical condition at all times, the question of diet, etc., being a part of personal hygiene.

Hot and cold weather, like disease, select for their victims whose who are in poor health or who are careless about their physical condition, while on the other hand, those who present a formidable resisting power are but little affected by the various climatic changes.

No better or more striking illustration of this can be given than in the instance of athletes, particularly baseball players, for these men during the hottest part of the day are continuously engaged in the most active exercise for two or three hours, and it is rarely that we hear of heat prostrations among them. This simply means that by careful training they have developed a resisting power which is but little affected by hot weather. It will be found that they are subjected to the most careful discipline as to their habits, foods, etc., and while it may not be possible or practicable for all to attain this splendid physical condition, we can use it as a text and remember that the preservation of our health is largely in our own hands; it matters but little what season of the year is present.

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Warm Weather and How to Deal With It

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee

A S the summer approaches the question is frequently asked, "By what means may the uncomfortable and sometimes dangerous conditions caused by hot weather be avoided?" In reply it is usually advised to keep as cool as possible, abstain from improper food and particularly from alcoholic drinks, and avoid undue exercise. While these are valuable suggestions, it will be of interest to know a little more fully why specially depressing influences are present in hot weather and what constitutes the protection against these conditions.

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Cold weather is rather stimulating and acts as a tonic to the system, while warm weather is quite the reverse, for it is enervating and relaxing, and unless we are in good physical condition, it is apt to cause depression and lead to other uncomfortable conditions. Furthermore, warm weather is very destructive to food stuff and other products, as decomposition rapidly ensues, for germs or bacteria multiply much faster when the temperature is high.

Some misconception exists as to the direct cause of the prostration which occurs during the summer months and which may range from a slight feeling of depression to a condition which involves considerable danger. It is commonly believed that the more serious cases are generally due to the direct rays of the sun or "sunstroke," whereas it is really more often caused by a continued high temperature without special regard to exposure to the sun rays, and is appropriately termed "heatstroke."

Perspiration, a Protection

Nature goes far to protect us against excessive heat as it does against everything else that is a menace to our health. In this instance it extends protection largely through the activity of the sweat glands in the skin, for in hot weather they abstract an enormous amount of water from the blood which upon reaching the surface of the skin becomes rapidly evaporated and cools the body and in this way aids in keeping it at its normal temperature of about 98½ degrees (Fahrenheit), although the temperature of the air may be much higher. No better illustration of this can be given than that which occurs in connection with

the work of a "stoker" or "coal heaver" in the hold of a steamship.

These men are often exposed to a temperature of 125 degrees or more, yet by profuse sweating they are able to maintain the normal temperature of the body. Still there is a limit to the equilibrium which nature is able to maintain in this direction, for if exposure to excessive heat is prolonged the temperature of the body cannot further be controlled and will quickly rise, and may in some instances be followed by a fatal heat stroke; for this reason the men just referred to are allowed to work below only for a short period at a time and every practical means of supplying fresh and cool air to this part of the ship is made use of.

Cases of prostration are not so apt to occur on the first day of a heated spell, for then the resisting power of the body is better able to overcome the effect of this depressing influence, but following this the number of cases rapidly increase.

Breathing and Fresh Air Essential

The danger of overcrowding, insufficient air and other unsanitary conditions during the summer months will be easily understood, for they add greatly to the depressing effect of the heat. It is for this reason that a large majority of cases of heat prostration occur in the tenement house distance.

Abroad the public have long ago learned the value of providing within their municipal boundaries spaces which act as breathing places and which in various ways are made sufficiently attractive and convenient to bring the poorer classes away from their unhealthy environments in order that they may secure at least temporary relief from the depressing influence of the summer months.

A practical and permanent way of avoiding the unpleasant effects of hot weather in the large cities and one which may be taken advantage of even by the poorer classes is residence in the suburbs; the value of this cannot be too strongly presented, particularly where there are children in the family, for at least fresh air and space may be secured in this way. The expense is no

greater, and the very effective means of transportation which are now available make it practical and easy to live some distance from the workshop.

Careful Selection of Food and Drink

There is much that we can do to relieve the discomfort of hot weather in the way of a careful selection of food and drink in order that we may diminish the work thrown upon the stomach and intestines, for during this period of the year these organs are apt to be not as well prepared to perform their function as at other times, and the food we buy is not always fresh and good.

We have in a previous article learned that meat, particularly when it is taken in large quantities, undergoes fermentation and putrefaction in the intestinal tract, and is largely the cause of the discomfort which oftentimes follows its use. This is much more marked during the warm weather, and, therefore, meat should be sparingly eaten during the summer.

Fish is a good summer food provided it can be obtained fresh. This is necessary, for it decomposes very rapidly in warm weather and if eaten in this condition may cause unpleasant and even serious results.

Cereals, fresh vegetables and fruit are also very valuable articles of diet during the warm weather.

Danger of Street Vendor's Products

Nothing is more unfit for human consumption during this time of the year than the decomposed and filthy fruits, drinks, etc., which are found for sale on the streets, particularly the ice cream which is dispensed from the so-called "hokey pokey" wagons. This stuff is consumed chiefly by children in the tenement house districts and is usually served to them on pieces of brown paper. As a rule, no one but the manufacturer knows where it is made or the manner in which it is adulterated, or what becomes of that portion which is left from the day's sale, although it is presumably worked over for the next day's output. Considering the care which is taken by municipalities in connection with their milk





The Company's Philadelphia Private Branch Exchange (For names see page 2)

Our Worst "Trouble" Storm

EVER in our memory," said several Plant men of long experience, "has the Telephone Company in or near Philaadelphia and Eastern Pennsylvania suffered so extensively, considering the number of stations and lines affected, as in the electric and wind storms which came Sunday afternoon and evening, August 10." And never, we may safely add, has such speed in restoring service been made in the same territory.

There were in all three storms, at 4:30, 5, and 8:30 P.M. The first was accompanied by violent winds and the others were electrical displays with rain. Approximately 8900 stations and 250 trunk lines were affected. Although in the majority of instances—except perhaps in the Main Line cases-service was maintained, noisy lines necessitated the clearing of trouble without loss of time.

(Continued on page 4)

Erie's Perry Week

By Z. Z. Hugus, Division Publicity Manager, Pittsburgh

CENTURY of peace between Englishspeaking nations is certainly a fitting cause for a centenary celebration. since the War of 1812 have Great Britain and the United States of America engaged in conflict on land or sea. That war, it will be recalled, was largely a naval one and a memorable battle of it was waged on Lake Erie, when Commodore Oliver Hazard Perry constructed his fleet of wooden vessels on the lake shore and finally emerged as victor from a bloody encounter with the British.

The citizens of Erie deemed the one hundredth anniversary of this battle worthy of commemoration, particularly in consideration of the fact that a century of peace followed the war, so that a monster celebration was arranged for the week of July 6 to 12.

(Continued on page 10)

Growth of Filbert 2790

N Philadelphia there were, on July 1, 3600 employees, all of whom have occasion at times to make use of the telephone service furnished by the Company's private branch exchange. This equipment, now on the sixth floor of our building at Eleventh and Filbert Streets, has had rapid changes and remarkable growth.

In January, 1898, it was felt that our employees originated and received a sufficient amount of telephone traffic to warrant a special switchboard. Consequently a two-position equipment with one operator was installed in a corner of the first-floor room at Eleventh and Filbert Streets, now occupied by the clerks in the office of the Atlantic Coast Division Manager. That was before the office was divided as at present by a hallway leading from Filbert Street.

(Continued on page 2)

Sept. 1

First Operator

The operator was Miss Maud Kennedy, and for relief work Mr. I. L. Darling-now a Subscribers' Agent in the Commercial Department, 1230 Arch Street—was employed. William Reed, also a pay station operator, acted at times as operator at the Company's switchboard. not engaged there they attended the switchboard of the public telephone equipment of the Lafayette Hotel, then on the southwest corner of Broad and Chestnut Streets. Usually their services were required at the Company's private branch exchange between 5 and 10 P.M. and between 7 and 8 A.M. The early morning calls were largely from linemen reporting to Charles Weeks, then Chief Lineman, at the rear of 406 Market Street, and from cablemen reporting to James Cunningham for their day assignments.

Miss May P. Smith, who later was Principal of the Operators' School in Philadelphia, succeeded Miss Kennedy as regular operator here.

Stations in Service

There were then only 7138 telephones in service in the whole of Philadelphia and 3701 in the surrounding territory, so that the Company's own originating and incoming traffic was comparatively light. Two years, however (February, 1900) were sufficient to bring a growth that could not well be provided for by the first Company switchboard in the available space, and three positions of the Spruce central office "A" board on the eighth floor of the new building at Seventeenth and Filbert Streets were assigned to this work. Here three operators were required, and Miss Anna C. Boylan was appointed as one of them. The exact location of these positions was on the east side of the building now occupied as the first three working positions of "Spruce." A change to the middle of the north section of the switchboard and one other relocation were made prior to September, 1903. At the latter date a six-position equipment with six operators was required and a removal was made to the sixth or "Filbert" floor of the building at Eleventh and Filbert Streets. Miss Boylan, who had previously been appointed operator of this switchboard, became its first Supervisor in Charge.

Growth

The Company's need for communication, like that originated by its subscribers, has a prosperous habit of growing and the six positions became busy ones indeed. To eliminate the holding of long trunk lines as well as to facilitate intercommunication within the respective areas, sub-branches were utilized in 1906 in the five central offices of Filbert, Poplar, Kensington, Belmont and Germantown. Another sub-branch in Tioga was maintained for only a short time.

The rearrangement of certain Plant offices and the consolidation of a number of Commercial offices at 1230 Arch Street caused the discontinuance of all of these sub-branches except the Germantown one, which is still maintained. These changes naturally brought the bulk of the traffic to our already busy six-position switchboard. In December, 1912, therefore, eight additional positions were installed, making a total of 600 multiple jacks and 870 answering jacks. Of the fourteen positions, twelve are equipped. They serve 470 stations by means of 90 trunk lines. There are also two tie lines to Camden, one to Wilmington, one to Harrisburg, and one to New York.

Daily Traffic

| The average daily work of Filbert 2790 m | av be |
|--|-------|
| briefly given as: | • |
| Originating calls | 6644 |
| Incoming calls | 4301 |
| Toll calls | 145 |
| Suburban calls | 224 |
| Long-distance calls | 13 |

Some interesting points were noted in obtaining the history of this branch exchange. The present Supervisor, Miss Anna C. Boylan, was the first Supervisor in Charge and has continued at this work, in which she takes great pride, during the rapid changes which the increasing Philadelphia traffic has necessitated. For a time this work was under the personal direction of Mr. W. R. Driver, Jr., and later under the successive direct supervision of Messrs. N. Hayward, S. E. Gill, R. L. Barrows and H. T. Hall. Mr. Barrows' return to that part of the Traffic work was then followed by the indirect supervision of Mr. W. W. Young, with Messrs. Peacock, Dean and Wistar more closely overseeing it.

Thoughtful Supervision

Those who have been longest associated with the work of Filbert 2790 are the ones most appreciative of the consideration which they as operators have received from the officials and employees. Ten years in our organization have brought numerous trying changes. While rearrangements and additions are posted along the top of this large switchboard, memory must be relied on to complete connections where names and not numbers are used for interdepartment calling. The number of our stations now approaching the 500 mark requires a feat of memory perhaps unmatched in any other part of our telephone work.

The kind treatment of the service users of all departments and the alert and willing assistance of the supervisory employees in the adoption of practices and special equipment to lighten this busy load—all are credited by the operators with materially aiding in the important work of operating the Company's main private branch exchange.

Just as subscribers and users of our service are being urged to visit the central offices everywhere to see how their stations are operated, so the Filbert and Walnut Traffic Supervisor, T. Wistar, Jr., invites every employee to see the Company private branch exchange and note how its recurring problems are being met.

Traffic Employees on Page 1

Arranged by positions from RIGHT TO LEFT: Misses K. E. Masterson, H. M. Turner, R. Tennett, K. M. Saunders, L. Francois, B. B. Hamer, C. F. Kenny, M. Kramer, E. R. Wunderle, T. Wunderle, D. A. Borm, M. A. Kirchoff, M. M. Sullivan and N. A. Hayes.

STANDING, RIGHT TO LEFT: Assistant Chief Operator, Miss A. M. McCabe; Senior Operator, Miss A. K. Orth; Supervising Operator (in dark); Miss A. C. Boylan. At the desk is Miss A. J. Biles, Line Order Clerk.

An Ohio physician is credited with having for years depended upon a dog to awaken him when his telephone bell summoned him by night. If he was so "heavy" a sleeper as to need special wakening, we may be pardoned for suggesting that the service charges for a loud-sounding gong would be less than the dog's meat bill.



Harrisburg District

The Crispen Motor Car Company at Harrisburg has been re-signed by Salesman Cronican from a four-party line and extension station to a monitor switchboard with two trunks, five stations and one extension bell.

Due to the efforts of Local Manager Beam the Hopkins Manufacturing Company at Hanover Pa., re-signed from an individual line and two extension stations to a monitor switchboard with one trunk, four stations and one-fourth-mile excess mileage.

Local Manager Smith at Elizabethtown has secured an application from the Masonic Home Association for a new No. 1 P. B. X. with 32 stations and 2 trunks.

On July 18 one of our Littlestown subscribers called Local Manager Beam of York and said: "If you get a man here at once, I believe that I can land a new subscriber. A woman just came here to use my telephone, and I told her how good my service was, and how much she a widow with small children, needs telephone service."

Salesman Grove, on his way to Gettysburg via Littlestown, was intercepted by means of a message to a farmer along the road. The information was given him and at 3 P.M. the station was cut in service by F. Cunningham, combination man at Hanover.

All of this, which happened within five hours, illustrates a new type of assistance on the part of subscribers.

Local Manager Smith has received a letter from one of the most prominent subscribers in Lancaster commending the work done by combination men A. Landis, C. Haverstick and H. Gorrecht in the prompt restoration of service after a heavy storm.

Reading District

During the week of July 25 several hundred Blue Bell fans were distributed in Lebanon in an unusual manner. The boys in the Commercial Department placed fans in the offices of every physician.

Vaccination has been compulsory to hundreds owing to a slight epidemic, and there was a consequent rush for medical service. To say that the fans were soon put into circulation is putting it mildly.

A subscriber recently called at the Reading office and gave us the following information: has purchased the property next door to my home. The day she moved she rang my door-bell and her conversation was something like this: 'Pardon me, but have you Bell telephone service?' Upon being informed that I had she replied: 'I am so glad. I have been fortunate enough for a number of years to live next door to those with Bell telephone service and ! find it so convenient when I want to talk to my friends."

Scranton District

A traffic agreement has just been closed with the Cresco & Greentown Telephone Company.

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operating a territory in the extreme northern part of Monroe County, including the villages of Cresco, Greentown, Mountain Home, Buck Hill Falls and Canadensis. The central office and headquarters are at the latter place. This extends Bell

service to 105 more stations.

This territory has been an extremely difficult one to develop owing to the topography of the country and the scattered location of the subscribers.

Two circuits have been constructed between Cresco and Canadensis, connecting their central office with ours at Cresco, and a good toll development is expected. The Buck Hill Falls settlement of summer residents from New York and Philadelphia is served by this company.

A No. 10 common battery equipment is to be installed at the Olyphant central office. This will have 300 subscribers' lines and two subscribers' positions and one toll position, and is designed to be sufficient for three years from the date of the cut-over.

The Hughesville, Laporte and Dushore toll line is to be rebuilt. This line covers a distance of thirty-five miles and, besides the erection of 7 poles and 44 cross-arms, includes the replacement of 593 poles and 702 cross-arms.

SMITHING.

Williamsport District

While canvassing for rural subscribers in the Easton territory the salesman encountered a prospect who claimed he did not need a telephone, as all his business was done by telegraph. After the salesman explained to the party that telegrams could be sent by telephone and billed on the telephone bill, he immediately obtained the application.

The Muddy Run Telephone Company, a Plan "A" company served from Milton, is constructing several miles of additional pole line to care for new subscribers in the vicinity of Braun's Mill and the Muddy Run School House.

A subscriber stopped our Lock Haven salesman on the street and complimented our Company on the fine service he was receiving. He said that since installing Bell telephone service his business had increased by fifty per cent.

Development Work in Adams County in the Last Fifteen Months

On April 1, 1912, we had but two exchanges in Adams County, viz., Gettysburg and Littlestown, aggregating 214 stations in the entire county. Since that time, at various intervals, exchange centers have been established at the following points, with subscribers as noted below: York Springs, 139; Biglerville, 155; New Oxford, 105; East Berlin, 66; and Fairfield, 20.

East Berlin, 66; and Fairfield, 20.

The town of York Springs has the largest percentage of rural development, 91 per cent. New Oxford has the highest percentage of exchange development, with a total of 64 exchange subscribers compared with two subscribers one year ago. The Gettysburg exchange shows a gain during the last year of 78 per cent. and Littlestown exchange shows a gain of 33 per cent. for the same period of time.

The total number of subscribers July 1, 1913, in Adams County, was 810 as compared with 214 fifteen months ago—a net gain of 278 per cent.

Vibrations

A 32-mile submarine loaded cable has been laid off the eastern coast of Vancouver, B. C., some of it at a depth of nearly 1400 feet.

"The smallest hair throws a shadow."

The three great liners of about 50,000 tons each, which have been ordered by the Hamburg-American Line, are going to be fitted out with telephone equipment of the most modern type, with which each stateroom will be connected.

"To have good neighbors, be one yourself."

In the August Southern Telephone News, published at Atlanta, Ga., a series of letters were begun from a chief operator to an operator. They are inspiring and encouraging.

"Sunlight is not so spectacular as flashlight, but it takes a better photograph."

A Washington collector found a coin dated 1752 in an automatic station. So far, no one has been able to identify it, but apparently it is one of the older English Colony coins.

Opportunity is in respect to time, in some sense, as time is in respect to eternity: it is the small moment, the exact point, the critical minute, on which every good work so much depends.—Spratt.

The Glidden automobile tour was reported by telephone to the newspapers by the aid of a telephone equipment which accompanied the press car. Attachment was made to the pole lines along the way by means of a portable pole.

"Man, like an engine, has just so much steam or energy. He can use it for or against himself or his fellow men."

The usual summer submarine cable work has been progressing. Across the St. Johns River at Jacksonville, Fla., a 100-pair, 2000-feet cable was laid on July 1. A large new central office building, attractive in design, is also being constructed in that growing city.

The optimist isn't really one
Who sees naught but the sun;
He knows the shadows just behind
Are there—for him to shun.

-H. P. Wartman.

The annual report of the Western Electric Company for 1912 shows sales of \$71,729,329. That Company has 24,000 customers other than the telephone companies, among whom are railroads, electric power central stations, street railways, contractors and dealers, manufacturers and individuals. The Hawthorne, Ill., Antwerp and London factories have all been enlarged and over 1000 new employees came during 1912, making a total of 24,564. Fifty-seven pensioners—of whom eight were added in 1912—now draw an average annual sum of \$634 each.

An indiscreet man is more hurtful than an ill-natured one; for as the latter will only attack his enemies, and those he wishes ill to, the other injures indifferently both friends and foes.—Addison.

In the report of Lieutenant Scott's South Pole expedition reference is made to telephones installed in the chambers containing magnetic instruments for experimental work and investigations. Others connected the training station for dog teams, the tide-gauge station and various depots some of which were fifteen miles away.

"Folks who can, do; those who can't, chin."

The importance of writing requisitions for needed materials and supplies is called to the attention of the Halifax, N. S., employees of the Telephone Company by a lengthy editorial in the August *Bullctin*. The necessity for re-editing the requisitions is favorably presented as well as the wasteful ordering of articles not needed.

"To serve is man's greatest privilege."

Mr. Alonzo Burt, Vice-President of the Chicago Telephone Company, claims more telephones for that city than has New York when the populations of the two cities are compared. The same may be said of other smaller places, perhaps; but a half million telephones in one city will be noteworthy always, and to New York will remain the honor of having led in obtaining that figure.

Time measurement is the recognized basis of all efficiency methods, and the more exact this measurement, the more exact may be the development of quicker methods of work.—W. S. Ball.

Prof. Munsterberg introduced for the A. T. & T. Company a test for determining which applicants were likely to prove good telephone operators. The girls were examined with reference to memory, attention, general intelligence, space perception, rapidity of movement, accuracy of movement and association. The results showed that the girls who qualified in the tests were the most efficient in practical service, while those who stood at the foot of the list failed.

Concentrate all your thoughts upon the work in hand. The sun's rays do not burn until brought to a focus.—Alexander Graham Bell.

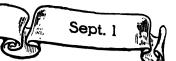
In the August number of Metropolitan Maurice Baring writes as follows: "What a saving to the temper are so many of the devices and arrangements of American hotels." Then he compares American and European hotel telephone service. "If you want a test of temper," says he, "try to get a number at the Hotel Cecil in London; or better still, spend a happy morning ringing up people on the telephone in Paris. In America it is done for you at once or you know it cannot be done and the matter is settled."

"Don't lose faith in humanity—there are over 90,000,000 people in America who never played you a nasty trick."

A great deal has been printed on the important subject of courtesy, but it remained for the Mountain States (Bell) Telephone & Telegraph Company of Denver, Colo., to launch a Courtesy Club with an executive committee and officers. A triangular button has been adopted and the first notifications were sent to members of that club's executive committee by Mr. E. B. Field, Sr., chairman of that committee and President of the company.







Our Worst "Trouble" Storm

(Continued from page 1)

Worst on the Main Line

Within the fifty-mile radius, the Bryn Mawr district on the Main Line reported the greatest damage. In that section, with so many large estates served by open wires on poles leading from the highways to the residences, it is thought that ninety per cent. of the loops were down. About 150 trees were blown over our service lines, takparatus at the cable terminal, closing the breaks in open lines, replacing fuses and carbons at the substation, and repairing or replacing other parts of the telephone apparatus burned out.

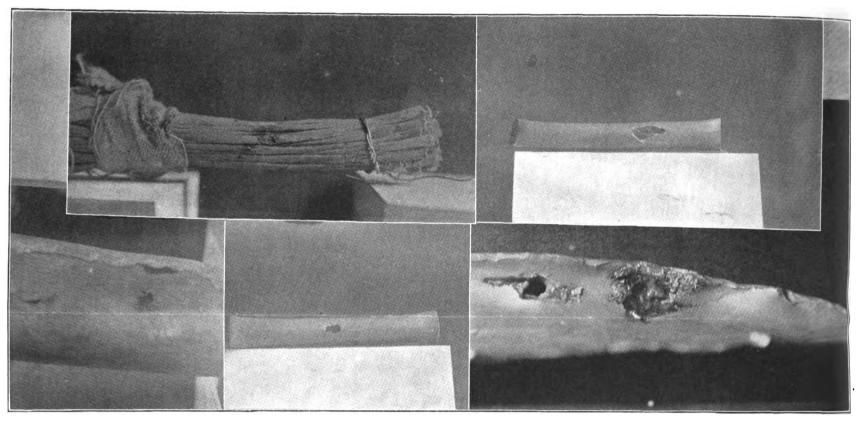
Occasionally leaning trees or hanging limbs were in such unsafe conditions that it became necessary to obtain permission to trim or remove them to prevent further line trouble.

This advertisement, which appeared in the Philadelphia newspapers, brought favorable comment from those who appreciated the Company's attempt to meet emergency conditions. The Philadelphia Record commented editorially:

the damage. But did you stop to think why such an advertisement, which could not be expected to produce results by adding to the number of subscribers, was published?

The editor then showed how public service corporations are cultivating good-will and called the attention of managers of smaller businesses to the same opportunity by saying that the advertiser who knows how to make use of newspaper space gets the bird in the hand and the birds in the bush to boot.

In the Norristown district an odd piece of trouble belonging to an electric light company



Five Views of Cable Trouble Caused by the Storm (Note how small some sheath burns are)

ing loops out, occasionally in three or four places in a single run. With perhaps ten per cent. of these homes directly connected, the electric and wind storms were unusually severe.

The Main Line sustained seven storms of greater or less damage in July and the first half of August. On July 2, 5, 9, 12, 30 and August 1 and 10 storms affected from 300 to 1300 stations each. Their destruction may be judged by the increase of troublemen from the normal figure of 12 on duty to 50 needed for the last-mentioned one. It was a genuine freak of nature also, inasmuch as the Jenkintown district, supplied to an even greater extent by high-tension electric service conductors and dotted with estates similarly wired, all but escaped more than normal trouble reports.

Seriousness of Damage

In sleet storms the replacement of cables, open wires and poles is in a measure condensed. A single cable replaced may restore all toll lines leading in that direction or all local stations affected. Those breaks are costly in material affected. but not so expensive in time—which on the average equals or exceeds the material bills.

The recent electric and wind storm brought all scattered breaks, blown fuses and cable burns which are, after all, the most troublesome to repair. Over and over the O.K.ing of a single repair. Over and over the Oliving of a single station necessitated work with the protection ap-

Storm Damage to Telephone Plant

This Company has experienced its most damaging Summer storm in years.

Summer storm in years.

The tremendous wind on Sunday evening, particularly serious in its effect on the cables and exposed wires throughout the outlying sections where underground construction is impracticable, resulted by Monday morning, in interruptions to service from 8500 telephones and along 250 toll lines.

Particularly heavy has been the damage in Germantown, Chestnut Hill, Chester, West Chester, Doylestown, Norristown and along the Main Line—although practically uninterrupted toll service between all points has been maintained.

All of our "trouble men." augmented by those in the

points has been maintained.

All of our "trouble men," augmented by those in other departments who could be pressed service, are now engaged in clearing and reparthe lines. This force of nearly one thousand has already repaired a large percentage of damage, and the more serious trouble will corrected as promptly as possible.



The Bell Telephone Company of Pennsylvania

"Doubtless you saw the advertisement of The Bell Telephone Company in Tuesday's Record, explaining how Sunday's storm crippled the service of that corporation and informing the public of the measures it was taking promptly to repair

was noticed. A transformer hung by two steel straps on a cross-arm of that company. The supporting pole was guyed to the next one by the usual twisted guy wire. A tree which fell across this strand caused the transformer straps to bounce clear of their cross-arm. The weight of the steel transformer snapped the wire connections and let the apparatus fall to the ground. A similar case would perhaps not be seen in a hundred wind storms.

Long-Distance Line Trouble

At 5:45 A.M. Monday, August 11, A. B. Detwiler, who was then Acting Plant Supervisor of the Main Line district during the brief illness of Mr. Stringfellow, was telephoned by A. G. Strickland, A. T. & T. Company's Chief Testboard Man for Philadelphia and surrounding territory, that twenty-five men were needed if our Company could spare them. Every line leading from Newtown Square had a number of breaks, and eight poles were out of service on the Poughkeepsie and Temple lead. J. A. McGowan. District Foreman, Chester, and P. Jensen, Toll Gang Foreman, were notified in turn, and ten men went in a motor truck from Clifton Heights. They left there at 7:15 A.M., and after three delays, caused by chopping fallen trees out of the road, arrived at Newtown Square at 10 A.M. All long-distance lines were restored to service before night.

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Trouble Small and Scattered

With wind so sudden and so violent and with so much electrical disturbance it was remarkable that so few poles were down. In the whole of the Eastern Pennsylvania territory affected only one pole was reported broken off. That carried twenty subscribers' lines near Cynwyd, Pa. There a new pole was required due to a break. Numbers of troublemen were essential to prompt clearance of the isolated cases rather than heavy construction work so common after disastrous sleet storms.

With a decided record in the amount of damage done in the August 10 storm, the Maintenance forces—with the aid of borrowed Equipment and Construction men-did a replacement job probably never previously equaled. Under W. A. Eipper, the Philadelphia Supervisor or Maintenance, H. C. Kunkel, Plant Superintendent Eastern, and James Cunningham, Supervisor of Construction, in Philadelphia and near-by territory, time and distance records were repeatedly

How the Trouble Cases Dwindled

In every large storm it is customary for a complete test to be made of all lines from the Wire Chiefs' offices immediately after the storm is considered ended. The outside repairs are postponed until the storm is over, because cable boxes may not be opened during its continuance, nor may other breaks be satisfactorily repaired then. The trouble is routed so that speed may be exercised in clearing it and the time of the available men may be best utilized.

Plant Eastern "Trouble" of August 10 Storm

| | | Lines A | Affected | | | Stations . | Affected | Trunks | | | | | | |
|--------------|------------|---------|----------|-----|------|------------|------------|--------|-----|-----|----|----|--|--|
| August | 11 | 12 | 13 | 14 | 11 | 12 | 13 | 14 | 11 | 12 | 13 | 14 | | |
| Atlantic | 57 | 26 | 14 | 0 | 101 | 45 | 28 | 0 | 16 | 9 | 1 | 0 | | |
| Bridgeton | 110 | 42 | 17 | 0 | 480 | 163 | 86 | 0 | 19 | 5 | 2 | 0 | | |
| Camden | 212 | 140 | 87 | 0 | 595 | 411 | 199 | 0 | 25 | 7 | 0 | 0 | | |
| Trenton | 114 | 78 | 26 | 0 | 372 | 210 | 89 | 0 | 3 | 5 | 2 | 0 | | |
| Burlington | 129 | 61 | 73 | 53 | 470 | 231 | 268 | 221 | 18 | 2 | 6 | 3 | | |
| Wilmington | 105 | 57 | 13 | 0 | 277 | 150 | 55 | 0 | 25 | 8 | 2 | 0 | | |
| Dover | 5 0 | 18 | 5 | 0 | 184 | 78 | 10 | 0 | 15 | 9 | _ | 0 | | |
| Chester | 186 | 79 | 26 | 14 | 327 | 145 | 74 | 31 | 9 | 0 | 6 | 0 | | |
| Jenkintown | 162 | 145 | 76 | 21 | 244 | 263 | 141 | 41 | 0 | 2 | 4 | 0 | | |
| Bryn Mawr | 720 | 421 | 370 | 205 | 1273 | 881 | 631 | 364 | 39 | 19 | 6 | 4 | | |
| Norristown | 185 | 73 | 36 | 12 | 432 | 178 | 130 | 31 | 2 | 1 | 0 | 2 | | |
| West Chester | 219 | 138 | 70 | 15 | 753 | 560 | 264 | 93 | 35 | 21 | 6 | 2 | | |
| Doylestown | 60 | 24 | 26 | 17 | 320 | 172 | 169 | 112 | 13 | 10 | 6 | 2 | | |
| Pottstown | 20 | 10 | 2 | 0 | 75 | 35 | 4 | 0 | 2 | 0 | 0 | 0 | | |
| West Grove | 70 | 16 | 27 | 0 | 264 | 96 | 70 | 0 | 10 | 4 | 0 | _0 | | |
| • | 2411 | 1328 | 868 | 337 | 6287 | 3618 | 2218 | 893 | 241 | 102 | 41 | 13 | | |

our control, such as railroad, telegraph and other company pole lines on which our lines are run and closed residences.

Philadelphia Trouble

In Philadelphia, as elsewhere, the speed in clearing the abnormal amount of trouble was so remarkable as to be a source of pride to the Company's officials and to those engaged in the work who knew its magnitude. At 7 P. M. of the evening of August 12 all trouble had been

The stations affected according to central office districts were—Baring 13, Belmont 204, Bustleton 86, Chestnut Hill 107, Diamond 99, Dickinson 20, Filbert 14, Fox Chase 38, Frankford 103, Germantown 200, Kensington 114, Locust 12. Lombard 33, Manayunk 150, Market 27, Poplar 40, Preston 20, Spruce 18, Tacony 80, Tioga 76, Torresdale 68, Walnut 20 and Woodland 75, making a total of 1616 reported at 8:15 A.M., August 11. There were five trunks affected, -one in Baring, two in Diamond and two in



Ten Miles North of Philadelphia on Meeting House Lane, Jenkintown, Pa.

> cleared in 21 of the 23 central office areas. Germantown and Chestnut Hill, with more or less isolated stations, excepting an insignificant number of scattered aerial cable damages, were brought to normal in less than a day later. As in the outlying territory, speed here was due to the use of our motor-power vehicles which made it possible for one man to cover territory otherwise requiring three or four workers.

> The cost of trouble clearing such as this is confined for the most part to cable burns with all of their incident time and labor.

Preston. Considering the complications and the number of cables affected, over two-thirds of all of the trouble was confined to the Germantown-Chestnut Hill Plant district.

Some Suburban Points Nearly Always Affected by Severe Storms

Increased Number of Cases

In going over the trouble slips, the reported number of 1616 cases were found to be nearer 2400. In Germantown alone of 200 cases reported August 11, 100 were cleared and next dav there were 284 cases! In Chestnut Hill, 107 were reported August 11, and while from 65

The Plant Eastern Division trouble cases as reported and cleared in four days following the storm are listed on this page.

On August 15, trouble beyond normal remained in only four districts:

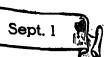
District Lines Stations Burlington 60 167 Chester - 8 14 Bryn Mawr 72 131 West Chester.... 50

These were due mainly to conditions beyond









Our Worst "Trouble" Storm

(Continued from page 5)

to 70 were cleared, the next day's report showed 175 stations affected! If from the 2400 mentioned 200 are deducted as routine trouble, the storm figures will then be fairly accurate.

In the entire Philadelphia Division only two poles were reported down-one in Frankford and one in Whitemarsh (Chestnut Hill district). Approximately 725 lines also required erecting aside from the number with other kinds of trouble. Between August 11 and August 13 at noon all of these lines had been O.K.ed, with the exception of those on which cable trouble necessitated other brief delays.

The majority of trouble reports developed difficulties of a more complicated nature such as any or all of the six here mentioned: (1) Fuses open between the underground and aerial parts of the plant; (2) copper blocks grounded on the aerial terminals; (3) line grounded in the aerial cable; (4) line down in places; (5) fuses open and carbons grounded at the stations; (6) open bell coils, shunted condensers, crosses in the induction coils of the apparatus itself. These instances of complicated trouble were met everywhere and were not in any sense exceptions.

Help Required

To make the records won in this excellent clearance job the Maintenance Division increased its regular force of about 50 on August 11 by 100 men from the Equipment Division. Ou August 12, 80 men were required, and on August 13, 60 men were employed for a part of the day. In addition, thirteen runabouts were recruited by increasing those from the Maintenance force with cars borrowed from the Supervisor of Equipment and Plant Engineer. Several more days would have been occupied in the work on account of scattered trouble in Frankford, Germantown and Chestnut Hill had not the cars been utilized to transport men and material from one location to another.

Cable Division Work

However multitudinous may have been the trouble reports handled by the Maintenance men proper, the Cable Division suffered the greatest losses in the question of time for the various repairs. Throughout the summer the reports of cable trouble, due to electrical storms, have showered the forces with repair jobs. This was due to the extreme difficulty of handling trouble that in numerous instances appeared at intervals throughout the same cables.

With the exception of the Bustleton and Fox Chase reports that came as a result of the storm of August 10, practically all cable trouble in Philadelphia was located from the new "Central Location Bureau," on the second floor of the Seventeenth and Filbert Streets building. A new test table for this bureau happened to be then in the process of installation. A temporary one had been in use for nearly a year. The additional possibilities of the new one had been shown only on paper, but now that its need was urgent it was hurriedly cut over Monday night, August 11, and placed in use Tuesday morning This equipment at once proved itself a valuable aid not only for Philadelphia cases but for a very large part of the trouble in Ardmore, Bryn Mawr, Lansdowne, Norristown, Conshohocken, Jenkintown and Oak Lane in Pennsylvania as well as that in Camden and Collingswood in New Jersey.

Philadelphia Reports

From 19 of the central office districts in the city, 191 reports of cable trouble were received from August 11 to 15, inclusive. Of these, 28 were in Belmont, 21 in Chestnut Hill, 22 in Frankford, 39 in Germantown and the remainder in small numbers distributed throughout the other districts. There were 99 cables and 399 pairs reported, 215 stations out, and 183 affected but not out of service. Eight trunks were out and one other less seriously affected. When actual clearing began it was realized that the numbers needing attention were much larger-in some cases involving fifty per cent. more trouble than was at first discovered.

Suburban Trouble

In seven Pennsylvania districts and two New Jersey ones near Philadelphia the Cable Division handled 153 reports of 638 pairs in 102 cables. There were 644 stations out of service and 150 more affected, besides 15 trunks out and two others affected. In these cases also the actual

work was not fully covered by the first reports

Those of the Maintenance and Equipment Divisions who could appreciate the magnitude of the Cable Division's problem said that "Jim Cunning. ham is so busy, we don't see how he is going to get out of it all with his usual speed." But they had forgotten to reckon with our Philadelphia Supervisor of Construction and his force, aided by the new Central Location Bureau equipment previously mentioned.

Oak Lane and Jenkintown, Norristown and Conshohocken, all of which presented difficult problems, had been cleared by the latter part of the week. West Chester and the Main Line still engaged the attention of the men. From Wayne, on the Main Line, a 60-pair subscribers' aerial cable about four miles long, leading on Radnor Road toward King of Prussia, added more than its share of work to the clearers. The Cable Division, moreover, located and "chased" much of its own trouble in the outlying territory due to scarcity of regular Maintenance men. By Saturday, August 16, all of the complicated trouble both in and out of the city had been cleared.

And now that it's all over, and we have a moment to catch our breath,-wouldn't it have been fine had we been able to take our subscribers behind the scenes with us during those six daysjust to show them how the "bunch" can handle trouble when they meet it in the highways and byways. The public want service, and they get it. When something unpreventable knocks the service askew they want action, and they get it.

A Left-Handed Method

An installer was assisting in moving material from the street to the central office. He was carrying one No. 37-A repeating coil weighing twenty-four pounds, and was using both hands. In order to open the door to the operating room, he transferred the load to one hand. The weight and shape of the coil caused it to slip from the man's hand. It struck his right foot and crushed the large toe.

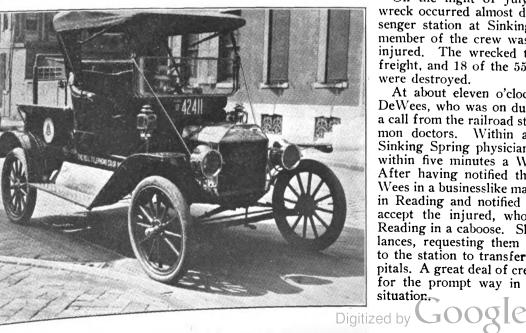
This accident could have been avoided if the man had placed the coil on the floor while he was opening the door.

Reading District Operator Renders Valuable Assistance

On the night of July 30 a serious railroad wreck occurred almost directly opposite the passenger station at Sinking Spring, in which one member of the crew was killed and four others injured. The wrecked train was an extra fast freight, and 18 of the 55 cars of wood and steel were destroyed.

At about eleven o'clock operator Miss Sarah DeWees, who was on duty at that time, received a call from the railroad station asking her to sunmon doctors. Within a minute and a half a Sinking Spring physician had been notified and within five minutes a Wernersville practitioner. After having notified the physicians, Miss De-Wees in a businesslike manner called the hospitals in Reading and notified them to be prepared to accept the injured, who would be brought to Reading in a caboose. She then called the ambulances, requesting them to proceed immediately to the station to transfer the injured to the hospitals. A great deal of credit is due Miss DeWees for the prompt way in which she handled the situation.

Scattered Trouble Taxed the Resources of 158 Motor Vehicles







THE TELEPHONE NEWS

The Bell Telephone Company of Pennsylvania The Central District Telephone Compan The Delaware & Atlantic Telegraph & Telephone Co. The Diamond State Telephone Compe

F. H. BETHELL, President
F. H. BETHELL, President
H. F. THURBER, Vice-President FORD HUNTINGTON, Vice-President
L. H. KINNARD, Second Vice-President and General Manager
W. S. PBIRSOL. Sec's and Treas.
J. H. CROSMAN, Jr., Jean (Jom'l Sup't), L. SWAYZE, General Auditor
J. H. CROSMAN, Jr., Jean (Jom'l Sup't), L. SWAYZE, General Autorney
J. C. LYNCH, Gen'l Sup't of Traffic
W. T. I.A. RUCHE, Gen'l Sup't of Plan
N. HAYWARD, Engineer
J. H. IIONS, Auditor
S. H. MOORE, Counsel

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Vol. IX SEPTEMBER 1, 1913 No. 17

The Office Boy's Opportunity

661'M the fellow who's supposed to be everywhere at once,-to answer the telephone, collect the mail, send it out, hunt up stationery and supplies, run errands, answer the buzzer for five hundred different wants each day, and usher in the visitors with a smile and a jump. When the boss is here I'm the busiest boy in the city; when he's away I'm the busiest boy in the state."

Such is the "confession" of one office boy; and he's a good one, too. He does all these things and does them with a grin. He's at his desk on time—ahead of time, usually-and he's "on the job" till the mail is out and the office door latched for the night. Sometimes he drops an inkwell or slams a door, and he'll stub his toe if there is anything handy to stub it on; but he's a *real* boy for all that,—one of the kind who has a living to earn and is going to earn it or "bust."

But this office boy—and he has no reason to feel lonesome—has one real task to master. Perhaps he doesn't appreciate it, but his telephone manners are miserable. No doubt the answering of telephone calls is very stupid business to him, but in neglecting to perform this part of his work properly he is overlooking a splendid opportunity to demonstrate his otherwise first-class capabilities among the men who are always looking for the "coming" youngster of his type.

His "well," "yep," "who do you want?" and "dontknowwhenhe'llbeback" are just the kind of answers which will keep him an office boy beyond his time. His boss, probably not knowing the boy's failing, cannot correct him,—but everyone with whom he holds a telephone conversation knows it, and is apt to pass him by when there's a vacancy to be filled. What the outsiders—the public—think, is more serious still. For service is what they are paying for; and if service doesn't in-

clude a polite and cheerful answer when the Company itself is called, then we're off on the wrong track entirely.

This should be remembered by every youngster in the business—that each step of our advancement requires, apart from everything else, an increased skill in the use of the telephone itself. The faculty of clear, crisp, to-the-point expression of thought by telephone can only be acquired by time and experience; but the first principle of all is courtesy-politeness and thoughtfulness. Look around at the "big fellows" of the organization, observe their manner of address in the use of the telephone, and bear in mind, too, that it didn't just happen this way; there's a reason, a reason to be reckoned with by everyone from forecastle to quarter-deck.

All in a Day's Work

AMILIAR as are to us the marvels wrought by the telephone, even we must often pause and stand agape at some new proof of this wonder-working, some new evidence of the truly bewildering achievement of our service and of our organization.

Only a day or two ago a young girl, distracted by worry and excitement. appeared at one of our large city offices with an appeal for assistance. Her story was short and her plea urgent. Somewhere in the mountains of Pennsylvania her father, an engineer, was superintending the construction of a railroad,—just where, she did not know. Late the previous day a telegram had been sent him, urging his immediate return home to the bedside of a desperately ill wife. No answer to the telegram had been received; in fact it was doubtful if the father had received it. And so the young girl's appeal was: "Get my father on the telephone—get him somehow; I know you can do it.'

And so the word went out. The longdistance chief operator was advised as to the name of the person wanted and the county in which he was believed to be working, a county just two hundred and fifty miles away. No information was forthcoming as to the name or kind of railroad he was constructing, nor was the location of the nearest post office known. It was: "Get my father—get him somehow"; and Long Distance "got him."

As to just how it was done does not concern us here. Sufficient that within twenty minutes after the call went out came the assuring message that the husband and father was then leaving on the noon train for home,—and one more win was scored for Bell service and organization.

What if it was all in the day's work? Does that lessen the tribute to a young woman or half a dozen young women who, scant as the information was, searched hill and dale, calling and cross-calling, questioning postmasters, railroad agents, storekeepers and innkeepers until the person sought was found?

This is Bell service and Bell organization and Bell efficiency,-and we're

mighty proud of them all.

How About Your Slogan?

ENERAL EDWARD F. JONES, of Binghamton, N. Y., famous as a soldier, man of politics and author, will perhaps be best remembered as the originator of that almost classic phrase, Jones of Binghamton, HE PAYS THE FREIGHT.

This is no place for the full narrative of his wonderful rise in commercial life; the story of his famous slogan, its origin and its electric effect on the markets of the East is familiar to most of us: how, when people thought of Jones, they recalled his promise to pay the freight; how he "made good"; and how wealth and fame resulted to his service.

But an opportune reference to our own slogan—the familiar Use the Bellcannot go amiss. To-day it emblazons our buildings and printed matter, in lights and in prosy ink,—but the word-of-mouth

suggestion is too often lacking.

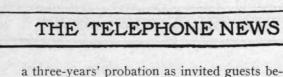
In our contact with the public we are known as Bell representatives rather generally; but how many of us are known as Use the Bell advocates? Talk it up; don't be afraid to advertise the Company and yourself. Remember_that not everyone appreciates the advantages and value of the service as you do. Don't be modest; you won't bore people,-for they're really anxious to know.

"Good Morning!" and "Good Night!"

(By Miss Margaret A. McCarthy, Clerk in the office of the Traffic Supervisor, Germantown)

THERE are many little niceties in business that tend to ease the jolts received through life. The cheerful "Good morning" to our associates on entering office or shop to begin the day's work, and the pleasant "Good night" after working side by side with those who have troubles and burdens of their own, tend to make things sweeter and brighter for the next day's labor. A little help or "boost" when our neighbor is too heavily burdened makes us better men and better women and instills the true spirit of reciprocity in the common things of life.

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fore they are eligible to be proposed for membership. The things that appeal to this group of men for those ten days are the birds, the flowers, the trees, the fields, the streams, sunsets and stars, clouds—"

About this time the News representative fer precessary to guide the General Manager dials.

About this time the News representative felt it necessary to guide the General Manager diplomatically back to earth and insist that he be given information as to just what the General Manager did.

"The first thing I did was to discard collar and necktie, get into an old suit of clothes, flannel shirt and stout boots, forswear shaving any more than absolutely necessary to retain my self-respect, and put my watch out of sight not to be looked at or even wound,—refusing to be a slave to time or custom until I again should reach civilization.

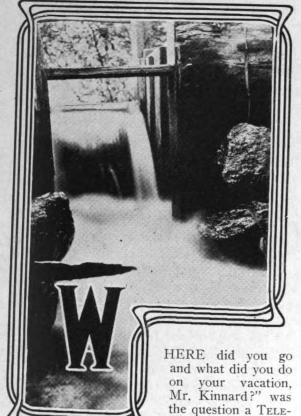
"Then I helped to erect tents and get the camp in shape, made my bed, reported every day for three inviting and wholesome meals (the cooks were masters of their art), played sniff (like "muggins"—a domino game) and pitched quoits. Some of the men went in for long exploring tramps and fishing; personally I preferred to stay closer to camp. I killed an inquisitive snake, helped to lay large fires for lighting at nightfall (we had some mammoth ones), flew a kite—"

Here the News representative felt he wanted a bit more information and was able to uncover the fact that flying kites was quite a pet hobby of our local executive, although Mr. Kinnard stated clearly that he was not the real kite sharp of the organization.

"The record flight at this camp was a mile and a quarter of string with a six-foot Eddy kite, during which there was an exciting moment when the kite seemed about to be lost on account of the curiosity or jealousy of a large buzzard. A kite was evidently a new experience in that buzzard's life and he rather resented the intrusion into his territory of this strange new bird; it was apparent to the spectators on the ground that he had decided to attack it. In one of his maneuvers he struck the string causing the kite to swoop in such a manner as to frighten him off, and the victory went to the kite."

"What did you enjoy most, Mr. Kinnard?" was our representative's next query.

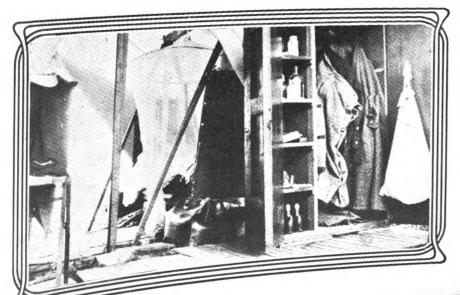
"Well, I should say the particular stunt that I enjoyed a little more than the rest in this camp was the building of a dam across one of the mountain streams in order to get a satisfactory bathing pool. The stream was fifteen feet from bank to bank at the point



Second Vice-President and General Manager. It took a bit of explaining as to what was desired with this information, but the News man got away with it and the following was graciously given:

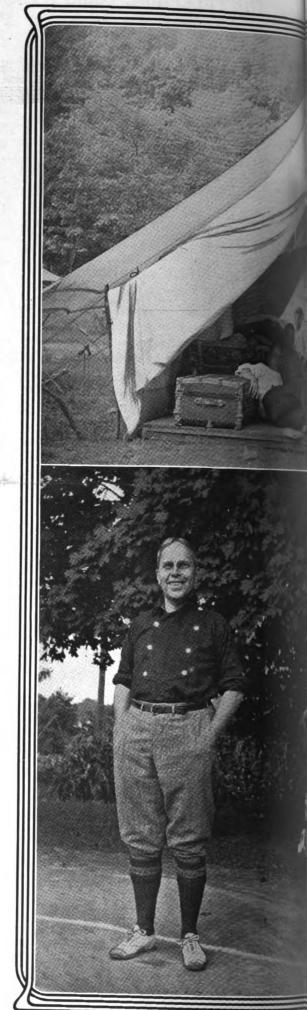
"This year it was not convenient for me to go very far away or to stay very long, so I spent the ten days at my disposal on the South Mountain, near Pine Grove Furnace, near Carlisle, Cumberland County, Pa., with a camping "stag" organization of which I have been a member for some years.

"Tell you in a few words something about this organization? It has been in existence for forty-two years and consists of about twenty men from every walk in life—lawyers, doctors, druggists, a doctor of divinity, artisans, architects, an artist, merchants, an editor, a public official,—all of whom have little if anything in common during the other fifty weeks of the year. This is an advantage; it means no 'shop' talk and insures a change, one of the surest forms of rest. All, however, are chums in and of the Great Outdoors, proving themselves acceptable by



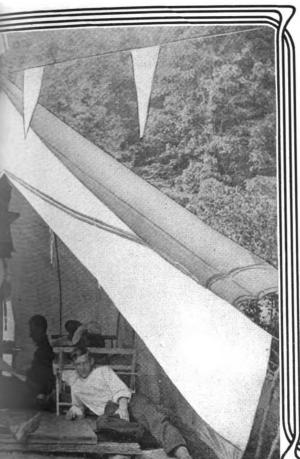
Initial illustration shows the dam built by the campers

Lower view is of the interior of Mr. Kinnard's tent with mosquito canopy, home-made cupboard, etc.



1913 Vacation of our Sect





we dammed it, and we succeeded in getting a breast that held between three and a half and four feet of water, clear as crystal, which gave us a very satisfactory bathing and swimming hole,—quite cold enough when called from one's cot for the morning plunge at 6 A.M. by the bugler's reveille. The building of the dam might not be much fun if you had to do it, but out in the wilds where you had but your hands and a few crude tools and were compelled to hustle and scheme for material—using stones, clay and sod and a few timbers from an old shack—it was real sport puddling around in that water and compelling that stream to do your bidding.

"How much work did I do?"

"Possibly it was a little hard to break training and not to do a little bossing, but if I did my share of bossing I also can claim to have (in the vernacular) 'lent a hand.'

"The weather was delightful; we had but one storm, which the tents weathered comfortably; it was hot enough during the day, but at all times the nights were comfortable. What I was after was a complete change from my accustomed mode of living, and I found it on this occasion as I have in previous years."

"Would you mind telling me, Mr. Kinnard, what such an outing cost you?



A Corner of the Sanitary Dining Tent, with the Screens that are Stored from Year to Year

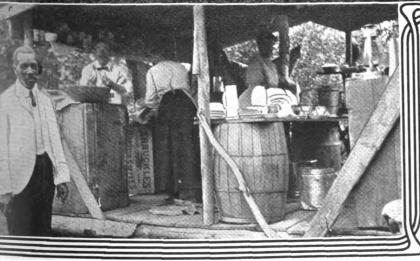
"I'm glad you asked me that. Strange as it may seem, it cost each member but \$15, and this left a balance in the organization treasury of some seventy-odd dollars to make incidental repairs to the camp equipment and to pay storage until 1914."

[Editor's Note.—The pictures of the "Explorers' Camp" are reproduced by courtesy of the secretary of the organization. They were selected from the official pictures forming part of the 1913 history of this most unusual organization.]



with Interior
of a Tent,
Members Around
a Fire Reading
the Morning Mail
and—Not Least
in Importance—
the Kitchen

Camp Views



One member is but 24 years old while another marched with Sherman from Atlanta to the sea

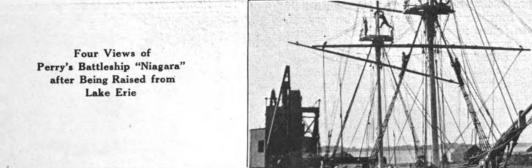




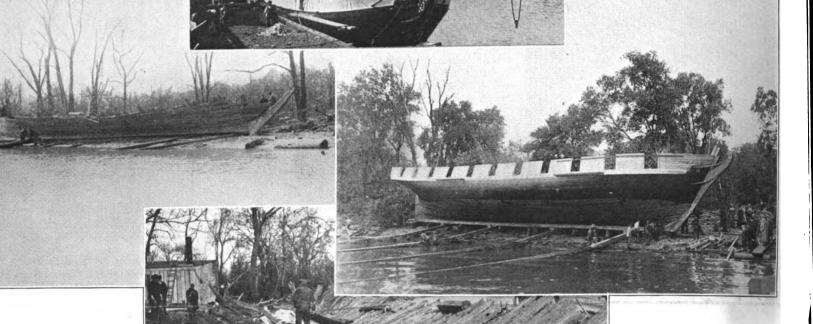
A Giant Bonfire of Oil-Saturated Timber is a part of each year's camping fun

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Rigging Being Completed for Centennial Celebration



ABOVE:

As the Boat First Appeared After 100 Years Spent Under Water

LOWER VIEW:

As Keel and Ribs Appeared

ABOVE:

Hull as Restored with Openings for Cannon

Erie's Perry Week

(Continued from page 1)

The Niagara, one of Commodore Perry's ships, which had been sunk in Misery Bay, near Erie, for nearly a century, was raised and refitted just as it had been a hundred years ago. During the celebration it was open to the inspection of visitors, and many thousands climbed aboard the old ship for an examination of the vessel from which Perry had so successfully directed his fleet.

Four thousand soldiers, a portion of the National Guard of Pennsylvania, were the first evidence in Erie of a gala week. By July 5 their encampment opened, and from that time on the city was thronged with crowds. Erie contained more people than ever before in its history, and the manner in which the visitors were entertained bespeaks much for the hospitality and goodnature of Erie's people.

The whole city assumed gala day garb. Business blocks and residences alike were bedecked

with holiday attire. The streets were brilliantly lighted. Where State Street, the main thoroughfare, crosses Perry Square, a Court of Honor was erected. Reviewing stands were constructed for use during the many parades of the week as well as for the concerts by night.

The shops took on a festive air. Many window displays were in keeping with the significance of the celebration. In the show windows of one of the large department stores was reproduced

Perry's battle of Lake Erie.

Before the memorable battle of a century ago, a Conestoga wagon laden with powder set out from Wilmington, Del., for Erie, to provide ammunition for the guns on Perry's ships. Entering heartily into the spirit of the centennial, the du Pont Powder Company repeated its trip of a century ago. This trip when begun was mentioned in our June 1 issue. An old-time Conestoga wagon, an exact duplicate of the one that went out a hundred years ago, was pressed into service and transported kegs of powder from the factory to the Niagara, in Erie harbor.

Commodore Perry and his younger brother were impersonated by Erie people and cermoniously received in the public square early Monday morning by Mayor Stern. The keys of the city were turned over to him and a fitting address of welcome was delivered.

The centennial was formally opened on Sunday, July 6, with "Peace Day" ceremonies in Perry Square, commemorating both the victorious battle of a century ago and the hundred years of peace with the mother country which followed the war.

The Wolverine, a United States vessel, and the oldest iron vessel in the world (built in Erie in 1844), was present.

Monday

was "Reception Day" and it was then that both "Commodore Perry" and the du Pont powder wagon put in their appearance.

Tuesday

was styled "Mothers' and Children's Day," and the parade which then took place was one of the

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best and most popular of the week. Children were dressed in the attires of the age which their particular sections of the parade depicted; for the whole pageant was devoted to the portrayal of events which had taken place in the history of Erie. The children were exceptionally well trained and the day served as a wonderful means of their education in local history.



Miss Catherine Williams
District Chief Operator, Erie, Pa.

The automobile parade took place at night. Several hundred gayly and elaborately decorated machines were in line, and the event was spectacular.

Wednesday

one of the most important and biggest of the entire week, was "Governors' Day." Not only Governor Tener of Pennsylvania but the governors of several other states were present. Despite a drenching rain the big military parade was a great success. The Highland Cadets, of Pittsburgh, performed an exhibition drill in the evening, and following that an hour and a half was consumed in one of the greatest pyrotechnical displays that has ever been witnessed in Erie.

Thursday

was "Naval Day" and was a great success. Hon. Josephus Daniels, Secretary of the Navy, was present and with him the Marine National Band of Washington.

Before the naval parade began, Secretary Daniels delivered his address from the public dock. The parade was interesting and vessels of all descriptions were entered. Prizes were given for the best displays.

After the band concert the water front was the scene of a brilliant aerial fireworks display.

Friday

was celebrated as "Fraternal Day," and Erie's many organizations responded in force and made

the parade one of splendor. The brilliant costumes of the Shrine patrol of Erie Zem Zem temple, the Elks in uniform, the Redmen, the Commercial Travelers and many other organizations united to form a beautiful and orderly parade.

Friday evening was perhaps the most enjoyable time of the whole week. The Mardi Gras carnival, which lasted during the entire evening, was participated in by everyone, big and small, rich and poor, old and young, and was thoroughly enjoyed by all.

Saturday

was a fitting close for the week and a climax to the celebration, at that. Interest did not wane and "Industrial Day" was witnessed by enormous crowds.

Products of all sorts of Erie's manufacture were exhibited. Local and national corporations entered into the parade with floats of all sizes and descriptions. The Bell Telephone Company of Pennsylvania was represented by a gigantic float carrying nearly three hundred desk stands and drawn by four beautiful white horses, attired in blankets of red plush with the familiar Blue Bell bearing the legend "Local and Long Distance Telephone." Throughout the entire course of the parade the "Bell" float drew applause from thousands of spectators and won the commendation of the officials of the celebration.

Finally the close came. It had been planned to have the *Niagara* sail out of the harbor on Saturday evening, but rough water delayed the exodus until Sunday morning, when the old craft was towed out and started on her voyage just as she had done a hundred years before.

During the entire week the Bell telephone was much in evidence. Special seasonable advertisements were run in the newspapers; the business office was in gala attire; the new building in the course of erection is prominently located, and many people read that it was to be the "Home of the Bell Telephone."

Traffic jumped to an enormous height. The operators were taxed to their utmost to handle the daily messages of Erie's people and their guests. A striking contrast there was when present-day telephone communication and rapid rail travel were compared with the slow messages and Conestoga wagons of Perry's day. And the enormous usage of the Bell telephone during the celebration bears witness to the way in which the public has adopted the modern inventions.

Erie is shortly to be fitted with a new and complete telephone building. A four-story structure is under erection and it is anticipated that before the winter snows begin to fall the building will be completed. New equipment of the latest type and most complete in every detail will be installed, and the Bell telephone plant in Erie will be a model for cities of its size.

The whole celebration was not intended to commemorate a victorious battle over a foreign foe so much as a century of peace between two nations of the same race—the same tongue. It was a pause in our march of progress, a turn back to view the distance journeyed—to realize what an epoch of results, of achievements the century has brought.

And surely we, in this recently established business of serving the telephone needs of the public, realize what a century it has been; what changes have been wrought and inventions produced; how the life of our nation's people has been altered by these very things which we are doing. Its realization is an inspiration to us.



Butler District

Fire was discovered at three o'clock in the morning in the rear of some buildings located on Market Street, Leechburg, Pa. On account of the age and nature of some of these buildings the fire spread very rapidly and it was only a few minutes until our office was filled with smoke, and it was with some difficulty that the night operator, Miss Grace George, was able to escape through one of the front windows. Shortly after Miss George left the building, several linemen who were working in Leechburg at the time entered and, finding a possible chance to save the equipment, immediately covered it with canvas and raised the cables from the floor, which were at the time covered with water.

The doors in the rear of the office were barricaded, and a few minutes later the Chief Operator, Miss Gertrude Cline, came up a ladder into the front window and immediately resumed operating the switchboard. Although firemen from Leechburg and adjoining towns were doing their utmost to fight the raging fire, it was only a short time until Miss Cline was compelled to vacate the office on account of the density of the smoke and the danger of the flames, but she left it for only about one-half hour. As soon as it looked as though the building would be saved she reentered and re-established service.

This is one of the most heroic efforts of any operator in this district and brought the approval of every resident in Leechburg, for many long-distance calls were necessitated and completed on account of this fire.

WARRICK.



Eric District Representatives

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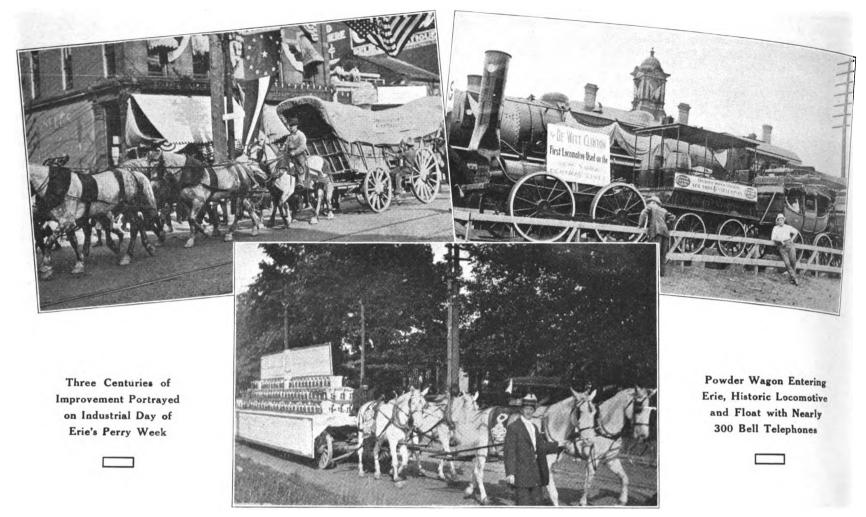
W. P. Page Traffic Supervio

W. R. Page, Traffic Supervisor E. F. Patterson, District Manager S. B. Williams, Plant Supervisor

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Halligation ...





Erie District

About the middle of August the central office at Youngsville was moved into new and improved quarters.

A small boy entered the operating room at Erie the other day and asked for the "cheap operator."

A complete central office equipment is to be installed at Wesleyville, Pa. This contemplates two two-panel sections of a No. 9 switchboard with 180 subscribers' lines, ten rural lines and three-call wireless trunks, a wire chief's desk, and a rectifier power plant.

The telephone growth in North East has amounted to 30 per cent, in the last ten years and the central office is now serving about 700 stations, one half of which are in the borough. An appropriation of \$10,000 has now been made for improvements at North East. Nearly six miles of aerial cable, varying from 25 to 300 pairs of wires and 133 poles, will be placed together with 44 cross-arms.

Johnstown District

A prominent business man on the tenth floor of the Johnstown Trust Building signed for individual line service, requesting that the telephone be installed between the hours of 10 and 12 A.M. No work could be started on this installation before 10 A.M. The application was turned in to the Commercial Department at 9 A.M. Mr. Hubbard, the Johnstown Foreman, was asked to have this installation made at the time specified. All of his men were at work and he made this installation himself and had the telephone working at 11:30 A.M.

Pittsburgh District

The following letter comes from one of the largest Pittsburgh corporations, and particularly in view of that fact is interesting. The work was under the direction F. L. Paulin.

"The additional Bell telephone installation at our plant, which replaces a private telephone system and which has just been completed and turned over to us for operation, is all that you claimed for it in advance. . . .

"The new feature which excludes the shop stations from outside communication through the switchboard is certainly satisfactory, and we congratulate you, not only on the mechanical efficiency of the equipment, but also on the painstaking thoroughness with which the installation has been made, involving as it did no inconvenience to the plant and no interruption of service."

Trailed by telephone over the pike from Pittsburgh to Ligonier brought automobile thieves into the meshes of the law. Officials in Irwin, Greensburg and other places were notified to hold the parties, but it was not until they reached Ligonier that the telephone caught up to the speedy machine. Here the thieves were placed under arrest and taken back to Pittsburgh.

Uniontown District

The Amicon Commission Company of Clarksburg placed nineteen calls at one time to various points in West Virginia. After the calls had all been completed, the manager of this firm called the Chief Operator and thanked the Company for the good service received and asked what the tolls amounted to. When told \$12, the manager seemed very much pleased and stated that

this was much cheaper than sending a represent ative to these out-of-the-way places.

At Fairmont, W. Va., three additional section of switchboard of 400 lines are being added to take care of the expected growth in the next few years. In order to make room for this additional equipment it was necessary to move the switchboard several feet towards the rear of the room and put in a "turning section." Rest and lunch rooms have recently been fitted up in connection with the Fairmont central office, and when the switchboard work is completed this central office will be up-to-date in every particular.

Complete power equipment has just been installed in connection with the central office at Grafton, W. Va.

MISS HEPPLEWHITE.

Wheeling District

The Farmers Telephone Company of Caldwell. Ohio, is responsible for all toll messages originating with the Mt. Ephraim Telephone Company. thus allied with us and bringing us 185 stations.

Miss Helen Ramella, one of our operators at Uhrichsville, Ohio, turned in the alarm of a fire that threatened the entire business section of that town. As it was, the fire resulted in a low of over \$18,000 worth of property, and the destruction would have been much greater if it had not been for Miss Ramella's promptness. In speaking of the person who gave the alarm, Assistant Fire Chief Creager said: "She should be given a medal for her coolness. When I placed the receiver to my ear, the feminine voice calmit said, 'Uhrich's barn is on fire,' and there was not the slightest evidence of excitement in her tone."

MISS DIEIIL.

Digitized by GOOGIO



The Norristown District led the Atlantic Coast Division in the amount of added revenue resulting from the suggestion slips for July; Norristown's total added revenue from 35 suggestions being \$460, of which \$294 was due to new business. The Atlantic City District had the greatest number of suggestions and finished fourth in the amount of business secured, being surpassed by Trenton with \$338 and Wilmington with \$320. West Chester received the same number of suggestion slips as Wilmington, but the Delaware city, by gathering in the largest amount of new business in the territory, finished ahead of the Pennsylvania town.

Camden District

The following newspaper clipping appeared in The Pitman Grove Review:

"We desire to extend a public vote of thanks to the operator of the Pitman exchange of the Bell Telephone Company, Miss Florence Carew, for her promptness in transmitting the fire alarm and calling the various companies on the occasion of the fire at the Kersey barn on Saturday night last."

WRIGGINS.

Bridgeton Sub-District

Bridgeton led all South Jersey in the returns derived from this season's potato crop, due in a measure to the extensive use of telephone service by their growers in keeping in touch with the market throughout the entire season. It is estimated that Bridgeton will send out 650 cars of potatoes, making this town the high shipping station this year, with Salem a close second, and Elmer probably coming in third.

On July 18, about two o'clock in the morning, a fire was discovered in the building adjoining the one in which is located the Bridgeton central office.

So fierce was the blaze that for a time smoke and flame poured across the five-foot area-way between the buildings and it was necessary to close all the windows in the operating room to keep out the smoke.

Despite the usual rush of business, inquiries as to the location of the fire, etc., the two operators on duty, Miss Mary Kauffman and Miss Hazel Alkire, found time to call the homes of several persons whose offices were threatened. This action was very much appreciated.

A few days ago a former subscriber called at the Bridgeton business office to say he had returned home and that he wished his telephone put back as quickly as possible, as he had sickness in the family and wished to be in direct communication with the hospital.

His story was repeated to Wire Chief Sutton, who in less than an hour had the station O.K.ed.

The subscriber was not long in thanking us for the quick installation and the good coöperation shown.

3000 feet of 60-pair cable has been erected at Salem, N. J., to take care of the business section in that town.

Dover Sub-District

A rather forcible contrast between things ancient and modern was shown last month when a

check was received at the Dover Commercial office written in a bold hand with some old-time flourishes, with both the body of the check and the signature heavily sanded instead of being blotted. It was found that the subscriber is a quaint elderly man of the old school, and while recognizing the benefits of modern inventions and time-savers, still clings to the old way of sanding his writings, as if loath to have every one of the old customs disappear in the face of twentieth century methods and manners.

A few days ago a woman subscriber called the Dover Local Manager on the telephone and in a few words advised him that a foreign woman employed in one of the local factories had been severely burned. There was just a period of sixteen minutes to secure a "bus," drive seven squares both ways and get the victim on the train to a hospital. However, all this was done with one minute to spare. While it was an ambulance case, we handled it in lieu of no regular ambulance.

Norristown District

A. B. Scheffey, salesman at Pottstown, recently signed the National Rubber Company for a No. 1 P. B. X This company manufactures rubber tires and is going to build a very large plant in Pottstown.

J. F. Burke, salesman, Norristown, has secured an application from Mr. Richard G. Wood for a P. B. X. in his palatial residence, Woodmont, Lower Merion, Pa.

An amusing incident occurred recently in the Norristown central office when Miss Margaret Phillips, acting Chief Operator, had finished explaining the operation of the switchboard to one of our subscribers who was visiting the office. The visitor was so much pleased with what had been explained to him and by her courteous treatment that he offered to remunerate her for her kindness.

Trenton District

The Trenton Evening Times commented editorially in a recent issue on the good judgment and methods being used by our Company in constructing its new building on East State Street of that city. The newspaper article was headed "By Way of Example."

"There has been no obstruction to traffic and pedestrians have been protected from danger from falling bricks and timbers by a substantial frame awning across the sidewalk. The old materials and waste have been carted away promptly, as was necessary on a congested street. There has been no rush, confusion, or indication that anything out of the ordinary was going on, and the new building will probably be ready for the finishers before winter.

It is said that an outside firm has the contract for the new telephone building; but there is no reason why Trenton builders should not take the same precautions for the convenience and safety of the public. No doubt they will cost the owners a little more money, but there is no reason why thousands of citizens should daily be put to inconvenience for the sake of saving something for the owner or contractor.

Having before them this example of what can be done, the building and police departments should insist that all contractors follow it in future. There has been too much of the other custom of sacrificing the interests of the many for the benefit of a very few."

A nicely dressed man called at the Trenton Commercial Department office and signed an application for individual line, unlimited service, and volunteered the information that if we wanted any reference to call the Western Union Telegraph Company. The Western Union was called, and as the reference was not particularly good, the case was given to a salesman for investigation. The following day the salesman reported that our prospective subscriber was in jail charged with passing bad checks.

An illustrated article on the Bell telephone in Medford township appeared in *The Central Record* of Medford, N. J. The story was illustrated by portraits of Miss M. Herbert, Chief Operator; W. G. Thorn, Wire Chief; and Oscar Ewan, Commercial representative.

The Trenton Times recently published an illustrated half-page article on the local history of our telephone company.

GARWOOD.

West Chester District

One of our economical subscribers stopped our salesman on the street the other day and handed him a bundle of Bell Telephone Co. enclosure envelopes, stating that she had saved them, thinking they might be of use to us.

A subscriber came into the Commercial office to use the automatic pay station to Philadelphia. Having talked overtime, she was asked to deposit more money, which she did not have. Being a good paying subscriber, one of the clerks loaned her the money desired and she finished her conversation.

Another non-subscriber, a stranger, came into the Commercial office to use the same automatic pay station, and after making his call, left the office. A clerk, in closing the door of the pay station some time after, picked up fifty-five cents which someone had left on the shelf. The man later returned and was handed his money.

A subscriber, having a bill rendered item on his August 1 bill, called up on August 4 stating that he had paid that amount. Upon investigation it was found that he had paid the bill rendered account August 2, two days after he received the August 1 bill.

GREENFIELD.

Wilmington District

A very interesting account of "An Evening in the Telephone Exchange," by Samuel Witherspoon, appeared in *The Star*, one of Wilmington's leading newspapers.

One Monday about 1 P.M. a report was received at Wilmington that two poles were lying across the highway on River Road, about one mile south of New Castle. The new delivery car carrying three men, together with digging tools, pikes, wire, etc., was immediately dispatched to the scene, arriving about 1:45 P.M., having covered a distance of about six miles. The roadway was soon cleared, poles reset, service restored and the repairmen on their way back to Wilmington, arriving at 3:30 P.M.

This is but one of many uses to which the new machine is put daily.

CHAMBERS.



hiladelphia Division D.I.CLEARY, Division Correspondent

Mr. F. H. Bethell was in Philadelphia on the 21st and spent most of the day looking over our local offices and plant, accompanied—in the absence of the General Manager—by several of the department heads.

Germantown District

One of our men was recently sent to clear a "piece" of trouble on a subscriber's extension station, and one glance at the instrument was sufficient to locate the trouble. The cord tip was entirely off the binding-post of the receiver, and the station was O.K.ed in such quick time that the subscriber remarked to the troubleman: long as you located the trouble so quickly and accurately, perhaps you could get a needle out been working for two hours and hasn't found it yet!"

A subscriber called in the office the other day and after ascertaining whether this was the Bell Telephone Co. office, requested an interview with Mr. Bell. She then explained that she had ab sent-mindedly made the request and wanted to talk to our District Manager, Mr. W. P. Hull.

A subscriber enclosed with her check an invitation to attend the marriage of her daughter.

An installer was about to connect a new line at a junction-box when the owner refused access to the property. A Rights of Way man then interviewed the owner but was unable to settle the difficulty. He then "scouted" around for a new location for the junction-box and found that the only desirable location had been "turned The Rights of Way man decided to try again to persuade the property owner, and not only secured the permission but convinced him that he could no longer do without telephone service. A solicitor later "signed him up."

Supervisor Fetter recently secured an application for a monitor board with 4 stations. This supersedes a contract covering one direct line.

A subscriber who recently became a widow called our cashier requesting information as to the proper way in which to make out checks.

F. M. Feaster several days ago secured an application for a P. B. X. No. 1 including 2 trunks and 10 stations after soliciting the business for about two years.

Numerous manufacturing plants are completed, in course of construction or planned in all parts of our Frankford territory. The prospects for new business are therefore very promising to Salesman Feaster.

On August 5 a serious fire occurred in the residence section of Jenkintown. Our truck driven by Mr. McGann was returning home about 5 P.M. with a line gang consisting of Messrs. Haley, Yost, Devlin, and McKeon on board. They reached the scene of the fire before the local fire company arrived and had it well under control, thus enabling the firemen to extinguish the blaze in a few minutes. Our men were complimented on their quick action in preventing any further damage.

While stenciling poles Mr. Barr of the Jenkintown District discovered a fire in a near-by field. He put out the fire, and after talking to the owner a while found that the man was in need of service. A solicitor later closed an application for residence service.

A new electric standard with five lights has been placed on the curb in front of our office which greatly adds to the attractiveness of our new quarters. A large electric sign has been hung from the front of the building in the form of a "Bell" seal and the words "Western Union" below. At night it is illumined by 498 one-eighth candle-power lamps; consequently this sign can be seen for a long distance in either direction.

A new 100-pair cable has been laid on Haines Street between York Road and Limekiln Pike, This will do away with a number of attachments to electric light poles, thus saving the Company additional expense as well as preventing congestion. This rearrangement will also take care of new subscribers, who will be connected to the Oak Lane exchange occasioned by the extension of the boundary line recently to Coxony Avenue.

Supervisor of Salesmen Hoff placed two additional stations and booths in the drug store of Philip Turner at Stenton and Chelten Avenues. This makes a total number of six booths and accommodates to better advantage the number of patrons of Bell service who have been formerly compelled to wait on chairs furnished by Mr. Turner.

Mitchell, Fletcher & Co. recently signed applications for two direct line Northern Zone business flat rates for the exclusive use of their sales force in soliciting trade. This makes a total of four lines used for this purpose. These are in addition to a P. B. X. No. 1 with 12 stations, 5 trunk lines and 9600 messages which has been in service for some time. Mr. Hoff has handled this subscriber for a number of years and is of great assistance to the manager of the store in providing proper telephone service.

1230 Arch, Business Division

A rush order for an installation was received at this office at 10:50 A.M. August 2. At 12:45 P.M. the work was completed. The men who did this work with such promptness were: A Moon, surveyor, H. Barlow and W. Achuff, installers.

All salesmen and clerks who were not thoroughly familiar with a switchboard have recently been taken through the near-by exchanges on instruction trips by Mr. Swain.

Recently during a thunder shower a man took refuge in the Company's building and while there picked up a few Bell Telephone advertising circulars. Three days later he called again and signed an application for service.

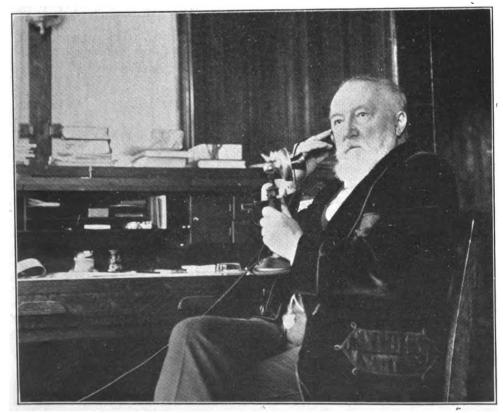
The following out-of-town men prominent in the telephone business recently made visits to this office: Mr. J. H. Moore, Cashier, Pittsburgh; Mr. C. H. Lehman, Contract Manager. Pittsburgh; Mr. S. J. Blight, Contract Manager. Baltimore; and Mr. H. E. Smith, Supervisor of Supplies, Harrisburg.

Mr. Max Freimark, formerly a well known employee in our Cable Department, Philadelphia. in both galvanometer and central office school work, writes interestingly from 1212 De Frees Street, Los Angeles, where he now lives. He has been with the Pacific Bell Company for about BRADFORD. a year.

1230 Arch, Cashiers' Division

A Sharon Hill subscriber who was telephoned to on account of delinquent bill, claimed that she had a receipt. When asked who it was signed by she replied, "The postmaster." Further questioning developed the fact that she had bought a money order and had kept it, thinking it was a receipt.

Enclosed with a remittance of \$3, to cover a bill of \$2.95 rendered to a West Philadelphia subscriber, was a memorandum containing the subscriber's name and the notation, "Keep the change!" The amount was of course credited on his next bill.



Mayor Blankenburg Philadelphia at Mt. Pocono. Pa. makes daily use of the Bell Telephone to direct office affairs.

> (Photograph by courtesy of the Public Ledger)

> > Digitized by





Banking Truck Used in Philadelphia

By J. Murray, Chief Automatic Collector, Philadelphia

URING the middle of August a bank truck of 1500 pounds capacity was placed in service in Philadelphia to facilitate the work of collecting from 13,800 public telephones with coin-boxes.

The purpose of the car is to meet each collector at intervals sufficiently close throughout his working day to relieve him of carrying heavy bags of coin from station to station and finally to the Business Office.

The car is an armored one, painted the familiar Bell blue, with the name of the Company in gold on each of the side doors and the standard seal in the center of the remaining side The radiators, wind-shield and other prominent metal parts are nickel-plated.

Inside, there are arranged around the sides and back fourteen steel bins or compartments 10 by 14 inches horizontally and 18 inches deep. In each of these the respective collector, who retains his own key, deposits his bags of receipts. At noon and at 4:30 P.M. these compartments are opened at the Cashier's office by a master-key. They are then totaled and checked against the separate collection entries in the route books.

Squad Collecting

There are now fourteen men collecting from coin-boxes attached to public telephones in Philadelphia. It is of course observed that no single automobile could meet each of these men at seventy-minute intervals—the schedule decided upon-throughout his working day unless the collectors as a body were working in a limited territory. That is exactly what the Cashier's representatives are doing. They are covering the territory in squad form, collecting a single central office district, more or less, in one business day, and continue this plan until the city has been covered. Certain central office districts contain more coin-boxes than do others, as is appreciated, thus requiring more time for their collection.

Also to save car mileage, one half of the squad now begin at one boundary of the day's territory and work toward the center and the other half work correspondingly, so that as they come together they will find the car nearer to all. The rectangular trips of the car, meanwhile, in meeting the various men, will be growing smaller and smaller

The men may start, for example, in the Belmont central office district in West Philadelphia and take up Baring, Preston, Overbrook and Woodland in rapid succession, thus completing all West Philadelphia coin-box collections. Then Central and South Philadelphia districts are covered, followed by the North, Northeast and Northwest sections, each in squad form.

Genuine Labor-Saver

To indicate how the collectors' strength is being better utilized by this car, J. Paramore, a collector, brought in, by three trips made in a single day, \$645 in nickels, dimes and quarters, of which \$585 was in nickels. When it is known that \$200 in nickels weigh 441/4 pounds, it will be realized what individual loads the car will eliminate. Mr. Paramore's route on the day referred to was in and near the large office buildings and the distances traveled were short, but the loads were there, nevertheless.

The former practice was for the men to start from the Cashier's office each day at 8:30. As



New Truck Used Exclusively for Coin-Box Collection Work in Philadelphia

the loads became too heavy toward noon to be carried with ease or efficiency, the men returned at noon with their collections and started again for the afternoon trips. This caused losses of time in transit, tired men and additional carfare. At certain office buildings, apartment houses and other localities, the climbing of stairs to reach coin-box stations was especially burdensome. The use of the car and squad work are expected to minimize this and to better all conditions.

Collection Possibilities Increased

Without the bank truck, the average number of collections each day for each man was 70. Not counting the time in transit, it required an average of only 4 minutes and 24 seconds to open a single box, count the receipts, pay the commissions, if any, and start for the next station. The elimination of the time of transit to and from the office at noon, together with the delays caused by a heavy bag of coin, should make it possible to increase appreciably the number of daily collections for each man without burdening him. Estimates of 102 stations a day for each man are considered quite possible.

There are approximately 13,800 public telephones with coin-boxes in service in Philadelphia, from which the present force of 14 men average 18,000 collections monthly. A year ago from 30 to 40 coin-boxes each day were reported full. Semi-monthly and even more frequent visits have reduced these to three a week, due usually to new connections on which prospective receipts are not known. By watching the receipts still more closely so that these stations may be changed from regular to special routes, and by following the other plans outlined, it is expected to do away with "full box" reports and to effect 24,000 collections monthly.

The chauffeur himself is a bonded man with former experience in this same collection work,

so that his efforts will help to accomplish the high standard. He has taken a thorough course in the driving and maintenance of automobiles and understands how to make all ordinary repairs to his car equipment

Further Aims

Incidentally it might be mentioned that in addition to supervising the general appearance of the booths and public telephone signs, the men are replacing hundreds of mouthpieces which have become nicked, broken at the threads, or so soiled that conversation from those stations is unpleasant. Every collector carries five new ones at all times, and the replacement, where occasion demands, requires but a moment and "pays extra dividends" in the surest and most positive kind of personal advertising.

In this article no reference has been made to the handling of coin-box trouble, the replacement of defective signaling apparatus, and the adoption of new prepayment boxes in certain sections of the city; these subjects are reserved for a later treatment which will appear in our paper. The use of a banking truck in collection work is so thoroughly interesting and leads the way to so many improvements that increased interest has been created among the collectors, whose days are crowded with demands for accuracy and speed.

Over-heating and under-ventilating in both workshops and homes gradually but surely undermine the workers' strength. There is no single factor which so directly and strikingly affects the tone of the human body.-Prof. C. E. A. Winslow.



Sept. 1



By Miss Kugel, Poplar Chief Operator

A short time ago the senior operators of the Poplar central office organized a picnic at the Wissahickon Picnic Grounds, which was attended by the Traffic employees of that office. Everyone had a gloriously good time, and some unsuspected and rare talent was displayed in the culinary line by the Misses Hiller, Gillman and McIlwain.

Miss Gregory showed the girls some of the fine points of the game of bean-bag. Anyone who imagines this game to be tame sport should have seen the resulting exhibition of skill and agility. Also, Miss Gregory can throw or catch a baseball like a big leaguer. After various other games had been played, the girls gathered on the banks of the Wissahickon Creek and sang. A number of excellent voices were discovered among the operators, the result being a real musical treat.

The committee in charge consisted of the Misses McIlwain, Priebe and McGinley. They are to be congratulated upon their efforts, which were largely responsible for making the affair a success.

May many more such good times be in store.

The Poplar Chief Operator has been forwarding copies of The Telephone News to one of her operators who has been in the hospital for several weeks. This girl has written to her Chief Operator stating that there is a general scuffle for The Telephone News as soon as she is finished with it.

Organization Changes

The Bell Telephone Company of Pennsylvania

Julian Gibson, formerly Pay Station Supervisor, Philadelphia, became Chief Traffic Inspector over the same territory on August 11.

F. R. Kirkland, formerly Traffic Inspector, became Chief Pay Station Inspector, Philadelphia, on August 11.

Other Traffic Department Changes

Philadelphia Division Organization

Effective August 14, the organization of the Traffic Department, Philadelphia Division, was made as follows:

The division is now composed of three districts—

The Northern District, including the following central offices: Poplar, Tioga, Diamond, Wyoming, Germantown, Kensington, Frankford, Chestnut Hill, Manayunk, Oak Lane, Tacony, Fox Chase, Torresdale, Bustleton, Ogontz, Bethayres, Willow Grove.

The Western District, including the following central offices: Preston, Baring, Belmont, Woodland, Ardmore, Bryn Mawr, Wayne, Cynwyd.

The Central District, including the following central offices: Lombard, Market, Walnut, Dickinson, Filbert.

Chief Operators in the Northern District report to Traffic Supervisor A. deB. Robins, whose headquarters remain at Germantown. Mr. Robins is assisted by Assistant Traffic Supervisor Paul Nicoladsé.

Chief Operators in the Western District report to Traffic Supervisor C. G. Tatnall, whose head-



Poplar Operators at Outing

LEFT TO RIGHT, STANDING:

Misses M. Fischer, Operator; M. Lacey, Information Clerk; C. Hiller, Information Clerk; K. Schoendienst, Operator; A. Hess, Operator; M. McIlvain, Senior Operator; A. McGinley, Senior Operator; A. McAvoy, Operator.

SEATED:

Misses J. Clark, Supervising Operator; E. Priebe, Senior Operator; T. Gillman, Supervising Operator, O. Lawrence, Operator; H. Greiger, Operator; G. Blanchard, Operator; K. Gregory, Operator, Operator.

quarters remain at Belmont. Mr. Tatnall is assisted by Traffic Inspector C. V. Hummell.

Chief Operators in the Central District report to Traffic Supervisor Thomas Wistar, Jr., whose headquarters remain at Eleventh and Filbert Streets. Mr. Wistar is now assisted by Assistant Traffic Supervisor A. P. Monroe.

Chief Operators in Spruce, Locust, Toll and Central Information Bureau report, for the present, to the Traffic Superintendent. The School of Instruction continues in charge

The School of Instruction continues in charge of Miss Mary D. Cardwell as Supervisor of Instruction.

H. D. Uhl, formerly Traffic Supervisor, is appointed Chief Clerk to the Traffic Superintendent.

A. M. Kite, formerly Traffic Supervisor, is transferred to the Traffic Engineer's office, Philadelphia Division.

Plant Changes

Effective August 18, the duties of the Superintendent of Supplies were enlarged. To E. J. Speh now report C. Lyman Meixel, Plant Accountant, E. Ebenbach, Supervisor of Supplies, and C. E. Doling, Supervisor of Motor Vehicles. Those men who were formerly titled Supervisors became Division Supervisors of Supplies, reporting to Mr. Ebenbach.

W. A. Deem, formerly Frankford Wire Chief, Philadelphia, became Wire Chief, Erie, Pa., effective August 18.

W. B. Eldridge, toll testboard operator, succeeds Mr. Deem as Frankford Wire Chief.

E. W. Weaver, central office man, has been made Wire Chief at Allentown.

F. P. Frazer, an installer, has been transferred from Ocean City, N. J., to Wilmington, Del.

J. M. Karins, a special climber at Ocean City, has been advanced to Gang Foreman.

L. E. Teal, a draughtsman, has been made

Chief Draughtsman in the office of the Plant Superintendent, Eastern Division.

II. J. Bradley, a test table operator at Doylestown, Pa., has been transferred to Wilmington. Del.

H. B. Cowan, a student engineer at Eleventh and Filbert Streets, has been appointed District Engineer, Main Line.

O. W. Turnbull, a specification writer at

O. W. Turnbull, a specification writer at Eleventh and Filbert Streets, has been appointed District Engineer at Jenkintown.

H. N. Clemens has been advanced from installer to Storekeeper at Erie, Pa.

W. J. Jennings, a directory advertising salesman, located for a short time in the Pittsburgh Division, has returned to Philadelphia.

I. A. Stringfellow, a test-table operator in the Walnut central office, Philadelphia, has been made Equipment Inspector.

F. W. Wright has been transferred from the Plant Accounting office, Philadelphia, to the Plant Superintendent's office, Eastern Division.

W. J. Sheldon, Jr., a salesman at Allentown, has been appointed Local Manager at Reading.

Effective September 1, A. W. Lincoln of the Publicity Department has been appointed Supervisor of Directories, in charge of all directory work except the compilation of alphabetical listing copy and the sale of directory advertising space.

The Central District Telephone Company

E. J. Decker, a former installer, has been made a central office man at Marietta, Ohio.

J. D. Masters, formerly Wire Chief at Charleroi, Pa., has been made Plant Wire Chief.

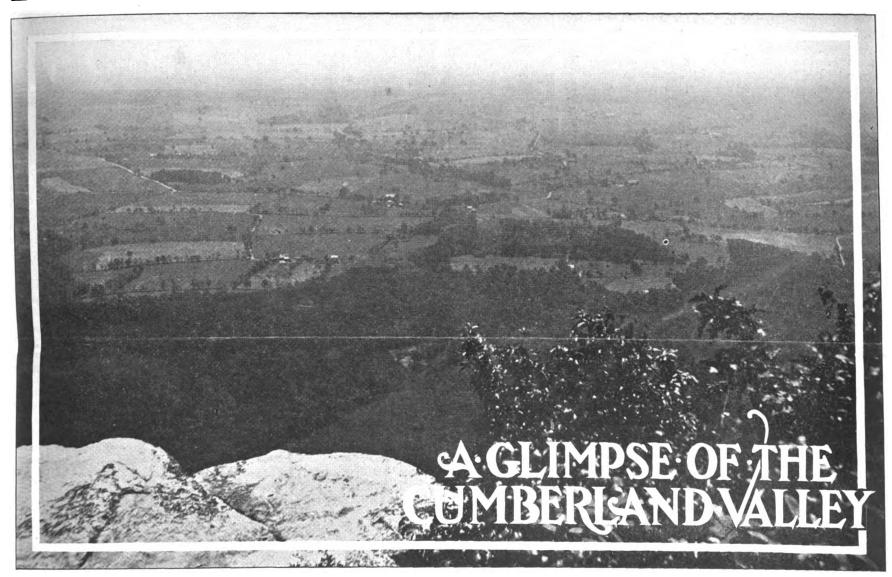
Jameson Lewis, a former installer at Steubenville, Ohio, has been appointed a central office

man, and
A. B. Preble, formerly central office man, has been made test-table operator at that place.

J. Adams, formerly a climber, has been appointed a foreman in the Greensburg District.







The Bell at Conshohocken, Pa.

HIRTY years ago (September, 1883) a central office was opened in Conshohocken, Pa., in the drug store of Mr. James W. Harry. That was at 37 Fayette Street, and nine business and three residence subscribers made up the total number then served.

The business subscribers at this early date were the Plymouth Rolling Mill; the Tradesmen's National Bank; the works of John Wood, Jr.; the Philadelphia & Reading Railway Company; J. Wood & Brother; The Weekly Recorder; the Conshohocken Worsted Mill; E. D. Jones & Company; William Haywood, Justice of the Peace; and W. H. Cresson. The majority of these or their successors are still subscribers. Among them the bank retains its old number—3.

Mr. Harry—in whose store the first local switchboard was installed—acted also as business

(Continued on Page 6)

Atlantic City Municipal Equipment

THERE has been installed in the city hall at Atlantic City a telephone switchboard with a maximum capacity of 130 stations, or 130 wires, 95 of which are now in operation. This already busy nunicipal switchboard is especially designed for city purposes, and each fire station, the police headquarters, hospitals and hospital tents on the beach now have instantaneous connection with all departments. The exchange also directly connects with the City Commissioners, heads of departments, bureau chiefs and City clerk. It will therefore be seen that the business of the municipal government may be carried on telephonically independent of outside sources.

Under an arrangement with our Company and the Director of Public Safety, the number "Atlantic 20" has been set aside for the use of all citizens as an *emergency call* for fire, police, ambulance or patrol service.

The Cumberland Valley

CCORDING to Mr. Hodges, the site of the Garden of Eden has been discovered a hundred and thirteen times. This calculation does not include Mark Twain's assertion that it decorated a plot now at the bottom of the Pacific Ocean. "No one in the world can show that it was not there," he added as proof positive. But if apples count for anything—and we are given to understand they counted for much in the Garden,—it is surprising that nobody has yet mentioned the Cumberland Valley in this connection.

For this beautiful stretch of land, forty-two miles long and twelve miles wide, is one of the foremost and richest agricultural sections in the whole United States, having all the natural advantages to make a successful farmer.

If you have formed the impression that apples are all that are raised in this valley, you had bet-

(Continued on Page 2)



Sept. 15

ter disillusion yourself and note that peaches, for instance, are every bit as important a product as apples. The southern end of the valley is freckled with peach trees; not shaggy, stunted trees, mind you, but trees that are almost as good to look upon as their fruit. One of the biggest fruit growers is Mr. D. M. Wertz, President of the Waynesboro Board of Trade, who had a \$30,000 peach crop last year. If you still have any doubt about this valley being as rich as any you ever heard or read about, it is to be hoped that you may sometime view the thousands of acres of model farms that checker the landscape from the Tuscarora to the South Mountains.

A point that occurs to the outsider is why these thrifty farmers have allowed so much land in this fertile section to go uncultivated. There are, as a matter of fact, barren spaces occurring at frequent intervals from one end of the valley to the other; in all, about forty acres, upon which, so far, absolutely no attempt at cultivation has been made. To make this matter perfectly clear, it might be added that these barren spaces lie between the ties of the Cumberland Valley Railroad.

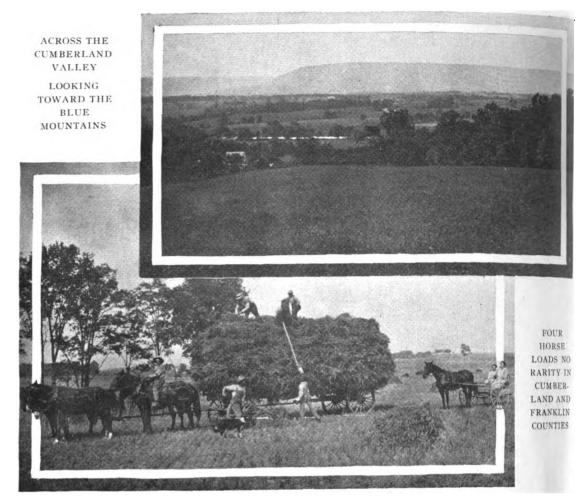
This road, so closely associated with the valley, was opened in 1837 with a big celebration. That the enthusiasm was justified has since been proved, for this comfortable old railroad, running as it does down the center of the entire valley, has done much toward developing the section.



FIRST TIME.TABLE

It has made agriculture and industry highly profitable by being always ready to accommodate the community; consequently those of us living outside of this little hollow have not missed the good things produced there.

What should be more fitting than that three weeks ago the Interstate Grangers' Picnic was held in this prolific valley. Here thousands—over fifty thousand, to be a little more exact—of grangers in this and neighboring states gathered, as they have done for the past forty years, at Williams Grove. Here they combined reminiscences with discussions, mixed pleasure with the pursuit of knowledge, for there were ample provisions for both; the educational side being looked after not only by agricultural lectures, but also by a large number of exhibits. While farm implements and machinery were shown from



many parts of the country, it really isn't necessary to go outside of the valley for much of it.

Seldom it is that the agricultural and industrial developments of a section keep abreast; generally it is all a community can do to see that one of these has a healthy growth. But, as you have already discovered for yourself, the Cumberland Valley is not an ordinary valley, and many cities much larger than any contained within its limits would be proud to boast of such manufacturing plants as are found here.

Take, for instance, the producing of agricultural machinery that was mentioned, it is worth knowing that more farm implements are manufactured here than in any other single county. Furthermore, Waynesboro turns out more agricultural machinery per capita than any other city in the United States. At this single town are located the old Geiser plant, recently sold for a million dollars, and the Frick Company. latter's thirty-acre plant are produced besides threshers, refrigerating and ice-making machinery, sawmills, steam boilers, traction, portable and stationary engines. Other large manufacturing concerns also located at Waynesboro are the Victor Tool Company, Landis Tool Company, making the machines that the Government uses in producing banknotes, and the Landis Machine Company. The last-named company is one of the largest manufacturers of threading machinery in the country. Their annual output amounts to over a half million dollars in value, and is marketed throughout the world, a larger percentage of it going to foreign countries.

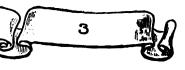
The Cumberland Valley not only looks after the education of its oncoming generations with exceptional care and thoroughness, but also does more than its share toward teaching "rank outsiders." However, nobody can point an accusing finger at any one spot in the valley and say, "There is an educational center," for the reason that schools and colleges are scattered all over the place. With all due respect to one of the neighboring states where universities are thicker than weeds, these are not common knowledge emporiums; on the contrary, they are worthy of the reputations that have come to them from a slow, steady growth through many years. For instance, there is Dickinson College, with its campus beautifying the center of Carlisk, founded in 1783; and Gettysburg, formally known as Pennsylvania College, established over eighty years ago, near what is now historic Gettysburg. The valley was one of the early sections of the country to believe thoroughly enough in the higher education of its girls to establish what is known in the South as "female colleges." Irving College was founded by Solomon Gorgas at



HISTORICAL COURT HOUSE AT CHAMBERSBURG

Mechanicsburg many years before the war. Another very popular college for girls is Wilson, located in the most beautiful suburb of Chambersburg. But we could mention Metzer College. Conway Hall, and that famous boy's boarding school, Mercersburg Academy, and still have left

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out a very important seat of learning: this is the Cumberland Valley State Normal School at Shippensburg, of which its namesake is justly proud.

Unquestionably, however, the most famous institution in the valley is the Carlisle Indian School. The site of this institution was used as a frontier military post in the early history of the Colonies, and it was here that Benjamin Franklin in 1775 made a treaty of peace with the Indian tribes of Pennsylvania. During the Revolutionary War a number of Hessian prisoners were brought to Carlisle following the battle of Trenton, and imprisoned here. While held as captives they erected the still standing stone guardhouse of unique construction, where Major André was confined. This post was donated by the military authorities to the Interior Department in the late seventies for the purpose of beginning an educational establishment for Indians. It was the first school of its kind to be opened by the Government. As to the purpose of the school, we cannot do better than to quote Superintendent

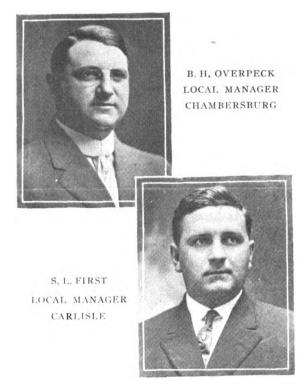
Friedman:
"It is the aim of Carlisle to train the Indian youth of both sexes to take upon themselves the duties of citizenship. Indian young men and young women are given an academic and industrial training which prepares them to earn a living, either among their own people or away from

the reservation, in competition with whites. It is primarily a vocational school for both sexes. Its graduates are engaged as efficient workers and leaders among their own people on the reservation and as teachers and officials in the government service, and are successfully competing with whites away from the reservation in the trades and professions," For instance, there is a member of the Chippewa tribe who graduated here in 1902, named Charles Bender, whose pitching average of 680 may almost be said to be discouraging competition.

That the Indian School should be at Carlisle seems most suitable, since it was the Indians who first appreciated the Cumberland Valley and used it extensively until the Scotch-Irish came from the north of Ireland about 1730 and advised the Indians to go west and grow up with the country. In the meantime the Indians had built a series of forts, eleven miles apart, down through the valley, and while they finally followed this advice à la Greeley, they received it with little grace.

The first important town after leaving Harrisburg on this "eleven-mile road" is Mechanicsburg. This name is deceptive in that it gives no clue that would lead one to expect the picturesque old-fashioned town that has grown up here with its substantial dwellings that come right down to the sidewalk in the most sociable kind of a

way and thus get under the shade of the big trees that line the streets. All the landscape gardeners and city architects working together have not been able to find a good substitute for this combination of massive interlocking trees and old,

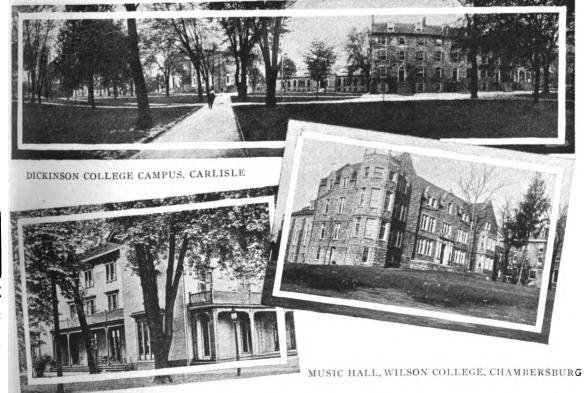


well-kept homes;—homes, mind you, not houses. There is nothing superfluous about these homes, either, and after their "trimmings" receive their annual coat of white paint, there does not seem to be any way in which they could be improved. By the way, one of the finest of these homes is owned by Miss Gross, who has been for many years Chief Operator at the local exchange which now furnishes service to over ten per cent. of the residents—or to 550 stations, to be more exact.

Do not, however, get the idea that Mechanics-burg is one of those towns that have never been troubled with insomnia, for it has a goodly share of industrial plants and runs year in and year out steel, textile and saw mills. Moreover, the town is constantly progressing as a manufacturing community, although it is to be hoped that it never will grow into a big industrial center, for there are getting to be far too few of these old-fashioned towns.

Another eleven miles and the train puffs down the main street of the largest city of the valley, with its broad streets lined with buildings of attractive architecture. To the outside world Carlisle is chiefly known for the educational advantages it offers, particularly to the Indians. For this reason its principal industries, consisting of

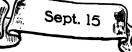
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IRVING COLLEGE, MECHANICSBURG

THREE OF THE EDUCATIONAL INSTITUTIONS IN THE CUMBERLAND VALLEY





the manufacturing of shoes and textiles, fail to attract the attention of the visitors that they otherwise would.

In the center of the city lies a beautiful open square surrounded by old churches and the court house, for Carlisle is the county seat. A short distance from the square is the "spick and span" office of Local Manager First and his associates. This office looks after about a thousand stations; not a surprising fact, for it has always been in

good hands.

The first of these managers was Mr. I. N. Frank, who took charge of the Carlisle district in 1882. In the early nineties when this local managership was offered to a clerk in our Harrisburg office who had proved himself most efficient, this clerk replied that he was not afraid of the work end of the job, but he had some doubts as to the business side. This sounds rather odd to us when we consider that this clerk is now our Second Vice-President and General Manager. When Mr. Kinnard was promoted to Lancaster, he was succeeded by another of the Pioneers,

Miss Minnie M. E. Hennigh.

Our Carlisle office has been "doing business" for a good many years, and almost all this time it has had Miss Hennigh gently prodding it on to better results in one department or another, until to-day it is a model office and needs Miss Hennigh to see that it lives up to its reputation. Miss Hennigh never looks so radiant as when times are cloudy. You can be sure that in the course of thirty years there are bound to be some big difficulties crop out. But there never yet was an emergency in Carlisle that has not been mer, and, of course, sometimes it was Miss Hennigh who acted on the reception committee. About as good an example as any occurred back in the early nineties when Edwin O. Meadow had a gang of men at Mt. Rock building a line to Newville. Foreman Meadow ran out of dynamite and was in great need of several boxes that were in Carlisle. The young inspector at Carlisle was consulted, but it was considered a very risky proposition to let him haul the explosive, for not only was there a chance that the Company would lose this much-desired dynamite but also an inspector, since the road was a particularly rough and rocky one. During the hesitation Miss Hennigh had a Drayton wagon hitched up and drove the boxes up to Mt. Rock. You see, there are some who are fully worthy to live in Carlisle, the home of courageous Molly Pitcher.

Miss Bessie Lindsay, the Chief Operator at the Carlisle exchange, was much in evidence at at big fire that occurred in Newville two weeks When the frenzied firemen directed their attention toward our Newville central office, they found two brave Newville girls, Misses Martha Housholder and Margaret Bowers, headed by Miss Lindsay, calmly working knee-deep in water while the flames were licking the outside of the

building.

CUMBERLAND VALLEY TRAFFIC REPRESENTATIVES

LEFT TO RIGHT:

MISS BESSIE W. LINDSAY CHIEF OPERATOR, CARLISLE

MISS BELLE KAUFFMAN. CHIEF OPERATOR, CHAMBERSBURG

MISS D. RUTH RUSSELL CHIEF OPERATOR, WAYNESBORO



This thriving little town of Newville has for some years been under the observance of telephone people throughout the territory, and it has produced remarkable results. Five years ago the opposition company was serving over a hundred stations in Newville. At this time the Bell men involuntarily called attention to the fact that we had the insignificant number of nine, when our men started after more service stations with a determination that meant business, and lots of In two years' time they installed over 150 telephones, and at the beginning of 1912 there were over 300 Bell stations around Newville while the opposition company did not have a hundred. To-day Mr. R. Blean Claudy will tell anybody who wants to know that the local exchange is now serving 460 stations; but they had



HEROIC NEWVILLE OPERATORS MISSES M. HOUSHOLDER AND M. BOWER

better not mark it down, beause the figures are liable to go up at any time.

By the way, if you are a red-blooded telephone man you probably will think more of the Cumberland Valley when you learn that it is a great sporting country. And, if fishing happens to be your particular hobby, perhaps you will not mind being told that a short distance from this town of Newville is one of the best trout streams in the United States. Luscious trout that delight the

heart and test the skill of the angler are also caught in large numbers at Doubling Gap.

In the early days, fox and deer hunting with hounds was considered the great sport of the valley, and no sporting gentleman's home was complete without a pack of from five to ten hounds, and scarcely a farmhouse was to be found anywhere without a pair of hounds. With deer and foxes still in the South Mountains, and with turkeys, pheasants, rabbits and a few bears and wildcats that still roam through the Tuscarora range, this is still not a country at which any skillful sportsman can sneer.

Continuing down the valley we come to Shippensburg, the second oldest Pennsylvania town west of the Susquehanna. The fact that the early pioneers should have pressed forward through inviting lands until they had come so far south can only be explained by the fact that, owing to a dispute existing between the Penns and the adherents of Lord Baltimore regarding the line between Pennsylvania and Maryland, the allies of Penn were pushing out as far as possible to establish themselves and claim possession before Baltimore's people could get in and claim the land. Thus the first permanent settlement in the Cumberland Valley was made where Shippensburg now stands, in 1730.

While other towns have sprung up and surpassed Shippensburg in population and relative importance, this town is in the front ranks so far as telephone development goes. It is hardly necessary to state that Shippensburg, with 300 stations, has a telephone development around ten per cent., as that figure seems to be the average in the towns in the Cumberland Valley. This fact. together with the remarkable growth of service stations, is certainly sufficient excuse for Mr. S. S. Eberts, the Harrisburg District Manager, to be very proud of this territory.

Chambersburg never will amount to much, according to well-informed people in Carlisle, because it is so far removed from Carlisle. In the language of the baseball writer, if you have not already "sniffed a rodent," let it be known that hostilities exist. The most painful aspect about the whole affair is that nothing is being done t The most painful aspect about





5



heal the breach. On the other hand, matters are being made more serious by a series of ball games between these rival towns. There have been five games played this summer, and one of these towns has won three—an overwhelming majority, to their way of thinking. But the season is not over yet, so it is impossible to classify these cities as to relative importance.

However, back in 1764, Benjamin Chambers started his town off and it has been going ever since; but, like any town that gets mixed up in history much, it has received setbacks. After one hundred years of sturdy growth, Chambersburg was burned by Confederate cavalry. However, this disastrous fire could not wipe the town off the map, for the inhabitants immediately began with added vigor to rebuild and they have made it the commercial and business center of a rich and progressive agricultural region, as the city is admirably located in the midst of most fertile farming and orchard land. Among its chief industries the city now numbers railroading, machine shops, knitting and woolen mills.

Just as the town has had a hard struggle at times, so likewise has had the Bell Telephone in Chambersburg. But that such a struggle develops good, solid strength is shown in the fact that between 1906 and 1912 our number of stations was more than doubled and nearly 700 new instruments were installed. Due to the efforts of Messrs, Overpeck and Keim the "Use the Bell" habit is still rapidly spreading not only in the city, but also through the outlying sections. Boyd Overpeck is the genial and efficient Local Manager at Chambersburg, while Guy Keim hustled so as Wire Chief at Carlisle that he has been transferred to Chambersburg and will now have supervision of the entire valley.



PLANT REPRESENTATIVES LEFT TO RIGHT:

J. A. SMITH WIRE CHIEF CHAMBERSBURG

G. R. KEIM PLANT CHIEF OF CUMBERLAND VALLEY

J. R. WYNKOOP WIRE CHIEF, WAYNESBORO

Our Chambersburg exchange was opened with twenty-five subscribers, and the local newspapers laid great stress on the importance of this event and predicted that before ten years were over the exchange would have fifty subscribers. More excitement occurred when the first long-distance service was inaugurated at Chambersburg in 1895. Two Blake transmitters had been connected, and before the throng that crowded the exchange room communications were held with Reading and Harrisburg, Pa., Frederick and Hagerstown, Md. The crowd at this big opening was further entertained by music, and listened in astonishment to a cornet played in Reading. That our exchange would to-day be able to give anyone at one thousand local stations rapid connection with points much farther distant than Reading could never have been realized at the time.

After leaving Chambersburg the next town is Waynesboro, whose development would fill a Western mushroom town brimful of jealousy. Waynesboro not so many years ago was only a plain country village surrounded, like most of its neighbors, by a rich farming region. To-day it never has less than a dozen representatives of its concerns abroad and ships its manufactured products to practically every civilized nation in the world. The population of Waynesboro is growing twice as fast as that of the country in general, and more remarkable still is the fact that business here is growing three times as fast as its population. The capital and surplus of its enterprises have more than trebled within the past ten years. These facts indicate more clearly than anything else the magnitude of the work that is going on here.

Naturally there must be some reason for this extraordinary growth, and everybody in Waynesboro is well aware that this is but the result of

(Continued on Page 8)



A Canadian Vacation

Our counsel, Mr. S. H. Moore, spent his two-weeks' vacation 100 miles north of Toronto, in Ontario, Canada. There, in Lake Joseph—one of the Muskoka system of lakes—are many islands of all shapes and sizes. On one of these, Arma Island, covering only four or five acres, relatives of Mr. Moore have a rustic-looking cottage from which a beautiful view of the lake is to be had.

This care-free vicinity provided good recreation for fourteen people—relatives and visitors—during the latter part of July. At about the middle of the outing a four-days' camping trip was taken eighty miles north of that point. A tent, bedding and provisions, as dunnage, were placed in bags and two cedar canoes made up the other necessaries. Open-air living and sleeping during practically the whole outing; fishing, canoeing, bathing and forgetting work and conventionalities, made a vacation that was particularly pleasurable.

Could You Operate This Odd Switchboard?

At McCutchanville. Ind., there is a Bell connecting service company serving 262 rural subscribers over two flat rate trunks. The 26 service lines are owned mutually by the subscribers. Each line terminates in a jack and extension bell, and no drops or other visual signals are used. The 26 bells sound alike to an outsider but not to the operator and his wife, Mr. and Mrs. Rough



The Bell at Conshohocken, Pa.

(Continued from Page 1)

representative of our Company and at times assisted at the switchboard. Two years later (1885) Mr. William Neville, the present Coroner of Montgomery County and proprietor of the Exchange Drug Store, was employed as a clerk and thus became the first Bell telephone operator in Conshohocken.

In 1887, Mr. Harry gave up the drug business but continued in charge of telephone matters, and the switchboard was removed to the second floor of the same building. This plan was continued until 1894, when our representative resumed the drug business, opening a store at First Avenue and Fayette Street. The switchboard was located in the rear of his store. There were then 40 subscribers. Mr. Harry died in 1899 and the store duties with the local telephone man-

agement devolved upon his son, H. M. Harry. In 1900, at the death also of H. M. Harry, the store interests were purchased by Mr. Neville. Under his management the equipment to serve our subscribers, who had now increased to 100, required larger quarters. The Telephone Company, therefore, in 1902 leased quarters over the drug store. Then also common battery service was installed. Miss Laura Wagner, the first operator in these quarters, recalls with interest the first long-distance conversation to Pittsburgh.

These changes were coincident with the removal of Commercial Department work to Norristown, where W. C. Hartranft, our present District Manager, was located.

Station figures in January, 1904, showed 143 telephones, and then rapid gains were made. In February, 1906, there were 513 stations, and on July 31, 1913, the number had become 777 served from the Conshohocken central office.

The present Chief Operator, Miss Gertrude L. Ford, now supervises the handling of over 2600 calls a day, including 1950 local and 650 out-oftown messages.

Photographs of Irvin J. Garis, Troubleman, and John F. Burke, Commercial representative, are also shown in the illustration on this page.

Conshohocken (131/2 miles northwest of Philadelphia) is a manufacturing place of 7480 population. It is distinctively an iron town, having been among the first places in this country to produce iron plates for ship and boiler purposes. The Alan Wood Iron and Steel Company is numbered with the largest independent steel companies in the United States.

Conshohocken is also the home of the Lee Tire and Rubber Company, whose plant covers approximately fifteen acres. This company, besides manufacturing rubber tires, is also one of the largest producers of surgical and drug sundries in the world.

tlantic Coast Division~ RANDERSON, Division Correspondent

The totaling of the additional revenue resulting from the suggestions of the Eastern Division Plant employees during July has brought about a close race for first honors among Jenkintown, Norristown and Trenton. Jenkintown succeeded in tying Norristown for first place with \$288 additional revenue, with Trenton a few dollars behind. E. S. Davison of Jenkintown ran even with H. E. Hack of Trenton for the head of the list, with F. A. Harvey of Norristown a very

close follower. Others whose suggestions resulted in the largest returns were A. Jackson, R. Binder, J. J. Connelly, F. B. Payne, J. V. Donohue, L. Garner, P. C. Ragotsky, G. Kerney, H. A. McIlwain, C. B. Lear, W. D. Davis and O. Farrow.

expert help quickly, he telephoned the manufacturer of the machine in Philadelphia. Then, acting on instructions received from the expert, he thus was able to proceed with the case.

PRINCE.



CONSHOHOCKEN, PA., SWITCHBOARD AND EMPLOYEES, NORRISTOWN DISTRICT

Atlantic District

Roy Adams, one of our Atlantic City salesmen, proved himself a hero the other afternoon when he stopped a double team of runaway horses as they were dashing through Pleasantville.

HALL.

Dover Sub-District

A physician in Dover, while using an X-ray machine on a patient recently, discovered something wrong with the apparatus. Wishing to complete the operation without delay as it was of a serious nature, and realizing that he must have

West Chester District

A new feature of the retiring room for the operating force of the West Chester office, which is being refurnished, is the installing of a library. The operators have already contributed several volumes, and more will be added from time to

Two severe windstorms in this district brought an odd coincidence not welcomed by our Plant men. The same silo fell twice into one of our 30-wire pole lines. Three trees in other places fell over the same line, but each time the undaunted crews restored service without delay.

GREENFIELD.





enth of each month in the int The Bell Telephone Company of Pennsylvania The Central District Telephone Comp The Delaware & Atlantic Telegraph & Telep The Diamond State Telephone Company

H. F. THURBER, Vice-President FORD HUNTINGTON, Vice-President L. H. KINNARD, Second Vice-President and General Manager J. S. WILEY. General Auditor J. S. WILEY. General Auditor L. C. LYNCH, Gen'l Sup't of Traffic J. H. HONS, Auditor S. H. MOORE, Counsel

itor, E. H. HAVENS, 17th and Filbert Streets, Philip whom all communications should be addressed SUBSCRIPTION PRICE:

Vol. IX SEPTEMBER 15, 1913 No. 18

A Short Personal Talk With You

O you, the clerk, the operator, the bookkeeper, the supervisor, or whatever your place in the organization may be, fairly appreciate how unfailing is the operation of the law of change and progress in this big workshop of ours?

Do you ever look back over the development of the past ten years—the changes we have witnessed, the continually bigger task and bigger accomplishment which have been ours, and last (but just as important to you and me) the strides that we, the individual employees, have taken in this ever changing, ever progressing order of things?

Dig out your copy of the 1908 organization chart, compare it with that of 1913, and you'll develop several points which you'd perhaps lost sight of in the hustle of to-day. To be sure we've growngrown at a prodigious rate. We've specialized wherever specialization could be made to yield increased efficiency and capacity. We've contributed in generous measure to the rank and file of our sister companies-Presidents, General Managers, General Superintendents, and subordinate positions too numerous to mention. But, most significant of all, haven't we made these five short years count, and count big, for the men and women who go to make up the great employee body of The Bell Telephone Company of Pennsylvania and Associated Companies?

Do you appreciate that over ninety per cent. of those whose names appeared on the 1908 chart are now engaged in telephone work of greatly increased scope and responsibilities? Consider the Traffic Department first, and here are a few figures to ponder over. Since January 1, 1908, eight Chief Operators have become District Chief Operators,—a title, mind you, which is used only by our Central District Company. In the

combined territory sixty operators have, in the same period, become Chief Operators, while one line order clerk, twelve Supervisors and eleven Assistant Chief Operators have advanced to the same posi-

If this is not sufficient, let's add that during these five years hardly less than two hundred and fifty operators have become Operators-in-Charge. And now who says that this isn't "going some" for the Traffic Department? Why, "going some" doesn't half express it!

Next,—the Plant Department. Just for convenience, let's consider a different line of organization—the thirty odd men reporting directly to our Division Superintendents; you, if you're a Plant man, know most of them by name or by their records. And comparing the personnel of this supervisory force with that of 1908 their positions and their responsibilities -don't you find that the percentage of advancement makes Frank Baker's total batting average look very sad indeed? Seriously, haven't we approached one hundred per cent. pretty closely in Plant also?

As to Accounting, Engineering and Commercial, make your own brief observations, they need be but brief, and see if you don't reach precisely the same answer in each case. And then, in the last analysis, stop to think what this all really Perhaps nothing could bear stronger evidence that ours is a business which is chock-full of opportunity for everyone, which is actually and rapidly developing its men and women for greater responsibilities, so developing them that when someone steps from the ranks another stands ready to take his place, not only to fill it but to do it credit.

And next, what does this continued development and advancement signify to you and to me? What promise does it hold out? Just this: Other changes will come, for remember that the unfailing law must continue to operate,—and are we exhausting every means to qualify ourselves for the steps of advancement which someone of our grade will later be called

upon to take?

It's a fine healthy struggle we're engaged in, you and I. Each of us has his competitors for the boss's job when he moves up the ladder: and though we can't all advance at once, it becomes every man and woman in the ranks to look ahead to the time when his or her name shall grace the General Order,—Will I be able to qualify? and How can I so improve myself in the meantime that my name will be first to come to mind when the candidates are considered?

This is the individual problem for each of us, and the answer is found in words that may sound mighty trite, but they're sound nevertheless-work, study, ambition, and a stout courage to stick everlastingly at it, doing everything, be the task big or little, to the last ounce of our ability. We can't take this all too seriously; there's not a particle of disproved theory in it, as you know and I know if we use our eyes and ears. The opportunity, your and my opportunity, stands within grasp of the fellow who reaches for it, not for the one who sits around waiting for it to slap him on the back; for opportunity doesn't pay visits that way.

A man can make about 150,000 motions in the average business day. If the number may be reduced to 75,000, for instance, his effectiveness as a worker will be multiplied by two.-W. S. Ball.

More Evidence

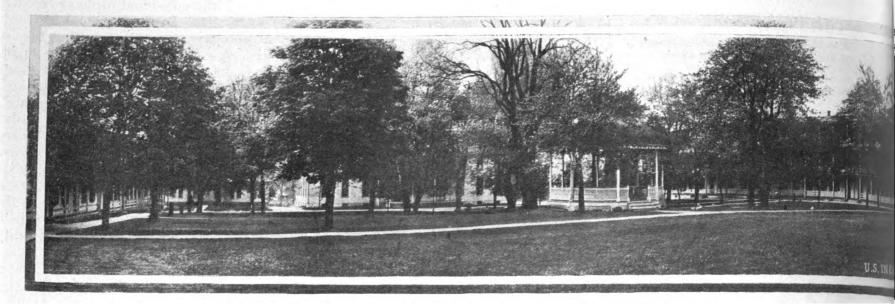
N another page appears the brief account of a night fire in a suburb of Pittsburgh, during which one of our operators refused to abandon her place at the switchboard despite the knowledge that her home was in flames. Though arrangements to relieve her could have been made, had she but acquainted her supervisor with the situation, no such relief was asked for, and not until too late were the conditions learned.

What Bell operators have done and are doing-almost daily-on occasions of unusual stress, is of wide knowledge and appreciation; hardly an occurrence of great disaster comes to our attention but that some young woman of the switchboard receives honorable public mention for her coolness and courage in the preserving of life or property.

But here was a quite different though just as noteworthy example of the devotion to duty which characterizes our operating force. Great as was Mrs. Anna Mc-Laughlin's sense of responsibility to her household, to whose assistance every human instinct and desire prompted her to fly, there remained one stronger and overpowering responsibility to the public she was serving, whose dependence on her throughout the watch hours was a trust to be observed before all else.

Ask yourself the question, "What would I have done?" and, regardless of your answer, the significance of our Braddock operator's steadfast courage shines out in a splendid way.





The Cumberland Valley

(Continued from Page 5)

the development of the cooperative idea. There are 10,000 persons in Waynesboro, and almost one-third of these are skilled workmen employed

The significance of the foregoing observation, as Cap'n Cuttle would remark, lies in the "application on 'em.'

Working backward from effect to cause, let it be known that in this hustling town there lives a job printer—a good job printer, by the way-

named Jacobs. Jacobs' initials are W. J. C.; but who cares what is in front of a man—it's what is in back of him that counts. And back of "Bill" Jacobs is thirty years of boosting telephone service. You remember that Stevenson once said, "I know what pleasure is, for I have done good work." Well, this man is a moving picture of those words of Stevenson.

Six years after Mr. Jacobs had placed the first telephone in Waynesboro, back in 1883, he met Mr. Josiah R. Davis, then General Manager in Chambersburg. Mr. Davis told him to build a thirty-

foot pole line with one grounded circuit from Waynesboro to Chambersburg. Having had experience only as a Western Union operator, Mr. Jacobs naturally desired some further particulars, but when he inquired what kind of poles to use he was told to use his own judgment. To complicate matters still more, he did not have any more tools than he did information; however, he was given permission to have the necessary tools made if the tool kit at Harrisburg was not sufficient. Mr. Jacobs enlisted the services of the Schriener Brothers, who had charge of the Western Union wires at Chambersburg, and bought some poles at Harpers Ferry for \$1.25 apiece. Many of the poles used were oak, because they could not always get chestnut of the proper height. With two gangs, each averaging eighteen poles a day, they soon established telephone connection between Waynesboro and Chambersburg. The result was so successful that the next year orders were issued to go on to Newville. The same two gangs of sturdy men did this work without a team and digging every post-hole in these twenty-two miles. Two of these linemen, by the way, were Dave Harman and Mark Ford. When this final link was completed in 1891, a



in its mills. The men who direct the factories and the men who perform the labor are joint owners and share alike in dividends; therefore there has never been a strike in the town, and since 1797 only half a dozen individual failures. Almost seven-eighths of the 1600 shareholders in the industries of the town reside there, and dividends of over five per cent. are paid on the \$6,000,000 invested.

It is hard to believe that in a town where nearly \$9,000,000 have been invested in various enterprises there is not a millionaire in the place; yet such is the case. Every plant is owned and managed by the people, thus making the interests

of labor the interests of capital.

Any visitor to this neat and thriving town cannot but agree with a recent writer who said: "The absence of poverty and the presence of prosperity would seem to argue that the Waynesboro idea is worth emulating. Brotherly love is its foundation, general happiness is its result."

A stranger wandered into Waynesboro from Maryland the other day and stopped a man on Main Street to ask him where he could find a Bell telephone. The native took the stranger two blocks down the street and pointed out a structure in the distance. "See that little place down there on the other side of the street? "Yes," replied the stranger. "Well, sir, that's the only business place on the main street that has mything but a Bell 'phone."

UPPER: THREE PIONEERS LEFT TO RIGHT: W. J. C. JACOBS, LOCAL MANAGER AT WAYNESBORO SINCE 1883. MISS MINNIE

M. E. HENNIGH, CARLISLE. MR. R. BLEAN CLAUDY. NEWVILLE.

LOWER: GROUP RUNNING FIRST LEAD-COVERED CABLE IN CARLISLE PHOTOGRAPHED ABOUT TWENTY-FOUR YEARS AGO IN FRONT OF CENTRAL OFFICE.

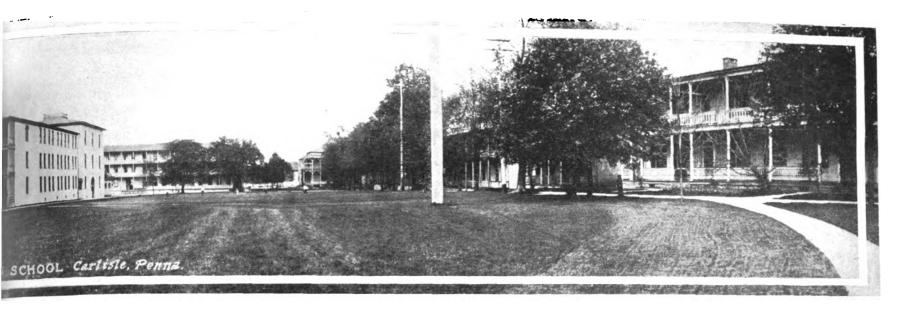






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thorough connection was established from Harrisburg to Waynesboro, a town that two years before had but ten subscribers.

But signs of growth were springing up all along the line, and a few years later it became necessary to install a Western Electric switchboard at Chambersburg to replace the board that had already become obsolete.

However, the development was decidedly limited in a good many places. For instance, Shippensburg, which had been cut in on the line, at this time had two subscribers, while R. B. Claudy had the only station in Newville.

Turning from 1895 to more recent times, there is one impressive fact that stands out clearly, and that is: while our Company was steadily pushing forward in the Cumberland Valley year after year, the sensational development had been saved until comparatively recent times. Remarkable as have been these recent results in this ter-

ritory. And that well-worn map of rural stations hanging in the Waynesboro office looks like nothing so much as the July fly-paper in the village store.

the only "stunt" of our telephone folks here. The Waynesboro District to-day has 47 service companies which serve nearly 800 farms and require 300 miles of pole line, 72 circuits, and

nearly 1000 miles of wire. This brings up another point; namely, that the agents of these rural lines pay semi-annually and that by July 28 every agent had settled for the second half of 1913.

Not to be outdone in the matter of making remarkable collection records, Local Manager First reports that in his Carlisle District of five exchanges, viz., Carlisle, Dillsburg, Mt. Holly Spring, Mechanicsburg and Newville, there are 55 service companies, 100 circuits and 1053 sta-

tions, and that their accounts were all paid before July 28.

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TYPICAL BASS STREAM IN CUMBERLAND VALLEY



ritory, it seems to be the general opinion that with the same efficient crowd that were responsible for this violation of the speed limit, still in the field this is but the semi-climax. On the other hand, a few of these splendid short-selling jobs are going to be mighty hard to surpass. For example, Mr. Jacobs, with the assistance of salesman Ross Gordon, changed Greencastle from one Bell station to 520 stations in three years and pulled the opposition company's station figures from 67 to 20. The reports to-day show nearly 2100 of our stations in southern Franklin County of which over 900 are rural, while there are now not a hundred opposition customers in this ter-

Then there is another pleasing exhibit at Mercersburg, whose population is 1500; where thirty months ago we had only two stations, to-day we have 425, and the opposition company three months ago hauled their switchboard and all equipment out of town.

Several years ago another opposition company was organized at Blue Ridge Summit with forty-eight subscribers. To tell the story it is only necessary to state that there are now 127 stations on the mountain, of which 125 are Bell.

There have been many other similar performances in the Cumberland Valley. Moreover, the rapid development of service stations is not

LOWER:

WHERE THE NIMBLE TROUT JUMP

Certainly this valley is a wonderful region! Strangely enough, the crowning glory of the Cumberland Valley could almost be said to be any one of five widely different things—one of the richest agricultural tracts in the country, the home of many thriving industries, a promoter of higher education, a sporting country of first rank, and the scene of a remarkable telephone growth. It all depends on your point of view.



GANG THAT REBUILT CHAMBERSBURGE WAYNESBORY LINE IN 1905





Sept. 15



"Defeat is only for those who accept it."

In the New England Company's annual Field Day an overhead-line building contest was held with decided success.

A telephone's the one best bet-in an emergency. -Telephone Engineer.

The Pacific Telephone & Telegraph Company has over 14,000 employees.

"Our doubts are traitors which make us lose the good we oft might win by fearing to attempt."

A very creditable article on business letterwriting, under the signature of Mr. William C. Bamburgh, appeared in the August issue of the New England Telephone Topics.

"Make others realize that you are dependable and you have gained an asset as valuable as scemingly greater acquisitions."

It is reported that an optical telegraph, for the purpose of communicating with the deaf, has been invented in Berlin. Essentially the device consists of a printing telegraph typewriter with varying currents passing through the various keys. When certain keys are pressed, corresponding lamps glow, spelling out words and indicating numbers. Each station is required to have both a sending and receiving device.

> "What are fears but voices airy Whispering harm where harm is not And deluding the unwary Till the fatal bolt is shot!"

More than \$200,000 worth of raw cotton is consumed annually by the Western Electric Company in the form of yarn, thread, tape, muslin cloth and canvas, as well as for a chief ingredient in emery cloth, tinsel thread and insulating tape.

"We are advised to spread our courage among others while keeping our fears to ourselves."

Effective August 18, 1913, the corporate name of The Telegraphers' Mutual Benefit Association, with main offices in New York, was changed to Telegraph and Telephone Life Insurance Association. This 46-year-old company specializes in insuring in \$500, \$1000, and \$1500 amounts employees engaged in either of the services named by its own title.

"Folks who think they are better than others usually

Twelve years ago the Western Electric Company entered into its first supply contract with The Bell Telephone Company of Philadelphia. Effective September 1, the Providence and the Cincinnati and Suburban Bell Companies signed supply agreements with the Western Electric Company, completing the list of all of the associated Bell Telephone Companies in the United States and Canada as well as with the Western Union Telegraph Company.

Better bark your shins a-trying than join the ranks of quitting men.—The Craftsman.

It is reported that telephoning over a bare iron submarine cable has been accomplished by the invention of an Englishman. Using ordinary telephone apparatus, clear speech-transmission was obtained. From present advices it appears that a thin layer of hydrogen on the surface of the immersed conductor, supplied electrolytically by a polarizing or "pilot" current, performs the function of the usual dielectric; certainly an ideally cheap insulation.

Another advantage claimed is the elimination of electrostatic capacity—a very important point where long-distance submarine telephony is con-

"Forgetfulness of others' faults makes as many friends as remembrance of their virtues."

Mr. William H. Baker has been elected President of the American District Telegraph Company of New York, to succeed Mr. Theo. N. Vail, resigned.

"A man has no more right to say an uncivil thing than to act one; no more right to say a rude thing to another than to knock him down."

The New York and New England companies have recently called attention to the picture postcard imposition caused by sending such cards to employees at their business addresses. The respective general office clerks who distribute personal mail of this kind have been swamped.

"The to-be successful ones attract attention-it i never necessary to have attention called to them."

The Government is arranging to dispose of 70,450,000 board feet and 286,000 linear feet of cedar poles in the Olympic National Forest,

"A momentary inventory of time available for contemplated work is a practical help when referred to during the progress of that undertaking."

'Colfax," a new central office, has been cut into service in St. Louis, Mo., by The Southwestern Telephone and Telegraph Company.

"The man or woman who equips himself or herself with a thorough knowledge of the reasons for methods in practice may rest assured that the chance will come to demonstrate that ability."

A former trained nurse in Los Angeles, Cal., has announced that she will collect the names of tourists in near-by places and announce them to telephone callers for a small fee. The inquirers will ask who is there from naming their home towns, and the information will be furnished.

"The reward of a good deed is to have done it."

Mr. George C. Maynard's address in Washington, D. C., on the history of Samuel F. B. Morse's telegraph experiments and invention is printed in full in the August issue of The Journal of the Telegraph (published in New York City by the Western Union Telegraph Company).

The best salesman is he who makes "the suggestion" at the psychological moment.—Orville Allen in the Business Philosopher.

The first switchboard made by the Western Electric Company was installed at Wilmington, Del., in 1880. It had a 25-line capacity.

'arrisburg Division~ J.C.WEIRICK, Division Correspondent

Harrisburg District

The exchange operators of Harrisburg were in attendance upon the opening week of the Orpheum Theatre, as guests of the management. This is an annual event and given in recognition of their services upon the "55" line. The young women of our Company were invited for a Tuesday, those on night "tricks" for the matinée and the day operators for the evening show.

Reading District

Bell telephone service was installed in the grounds of the Lebanon County Fair Association, and signs conspicuously placed called attention to these public telephones.

Wilkes-Barre District

An appropriation of \$50,000 has been made to cover the construction of a complete underground system in Pittston, and to provide for the removal of the overhead plant in the congested section of the borough.

Work on the underground construction in Wilkes-Barre is also well under way. An appropriation of \$54,000 was made in order to provide a plant to care for the local growth and the removal of uneconomical and undesirable wire conditions throughout Kingston, Forkston and Forty Fort, to permit the removal of aerial plant and to provide underground cable feeder relief.



MISS GRACE LYON AN OPERATOR AT BELLEFONTE, PA. IN COSTUME WORN IN LOCAL INDUSTRIAL PARADE

Williamsport District

One of our Wellsboro subscribers was awak ened in the night by the telephone and on answering was asked if he would call Dr. tell him he was needed at a certain home. The subscriber was glad to grant the favor although it meant walking a block to call the physician.

When the message had been delivered the physician said, "How do you like the doctor business" and then informed our subscriber that he had told his patients to call him in this way. The subscriber was too astonished to make a reply.

This physician, who has been repeatedly so licited, evidently enjoys making use of his neighbor's telephone.

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Dhiladelphia Division ~ DJ.CLEARY, Division Correspondent

1230 Arch, Business Division

A Philadelphia subscriber, who was planning to build a bungalow outside the city limits in a locality in which there had been some difficulty in establishing service, declared that unless he could get Bell service his bungalow would be useless and he would have to build elsewhere. Work was not commenced on the house until service was assured.

Occasionally a subscriber particularly anxious to have service installed quickly will supplement his request by offering a gratuity, which of course is politely refused. On one occasion a tailoring establishment offered the clerk a pair of trousers and a fancy vest if he would have service installed immediately.

If each page of the present issue of our Philadelphia General Directory were placed end to end they would reach 15,516.9 miles or would cover 131.8 acres.

BRADFORD.

Borrowing

Employees of this Company frequently borrow stepladders, boxes, barrels, and other things from subscribers for use in performing their duties about subscribers' premises, notwithstanding that such action is prohibited. Recently an installer borrowed a subscriber's stepladder to stand on while he bored some holes in the side of the building. A superficial inspection revealed no defects in the ladder, and the installer used it. The stepladder carried the man's weight (175 pounds) during part of the job, but when he changed his position, the supports of the ladder gave way and caused the man to fall to the ground. His injuries consisted of a bruised elbow and hip and a wrenched back, necessitating absence from duty for a week.

The Telephone Company furnishes ladders which meet the requirements of safety, for the use of its men, in order to provide safety for the workmen and to prevent annoyance to subscribers from "borrowing." The practice of borrowing subscribers' property for use in the Company's work is strongly discouraged. The assistance of employees in discontinuing this practice

is desired.

Some people are more unlucky than others, but it seldom happens that one person is injured twice within twenty minutes. A workman in one of the divisions recently happened to be a victim of such circumstances. He was heating a kettle of impregnating compound, and while in the act of stirring it, a large bubble of compound exploded and splashed his hand.

The workman completed his job, and then loaded his tools onto an open wagon, to be hauled to the next job. The man seated himself on a cable scaffold on the back part of the wagon. A large umbrella was mounted over the driver's seat. While going along the street a limb of a tree caught the top of the umbrella so that it was forced backward, striking the workman on the

The first accident caused a bad burn on one hand; the second accident gave the man a severe pump on the head.

Atlantic City's First Telephone Service

An interesting incident of early telephony in Atlantic City is recalled by Mr. Upton H. Balsley, who later became Superintendent of the Operating Department in Philadelphia.

Mr. Charles Bell, nephew of the inventor, came to Philadelphia and with Mr. Balsley worked in Germantown in the early eighties. The former sold service and the latter obtained rights of way and installed stations, but the work was not so distinct as in these days and each of the workers tried a hand at the other's duties at times. As mentioned in The Telephone News of May 1, 1912, Mr. Bell stayed at the Coulter Inn on Germantown Avenue.

Work progressed slowly but fairly satisfactorily here, and when service was offered in Atlantic City the same men worked there. After a sufficient number of subscribers had been obtained, plans were made for office quarters. The tower of the city hall was selected and a Gilliland switchboard was installed. It was necessary, of course, to choose a building with plenty of roof room for open-wire construction.

A temporary ladder of lath scantling was built to provide access to the tower and a permanent stairway was ordered. However, there was a

delay in completing it and the operator was obliged to climb the ladder during the whole

Aid Again Summoned with Extension Station

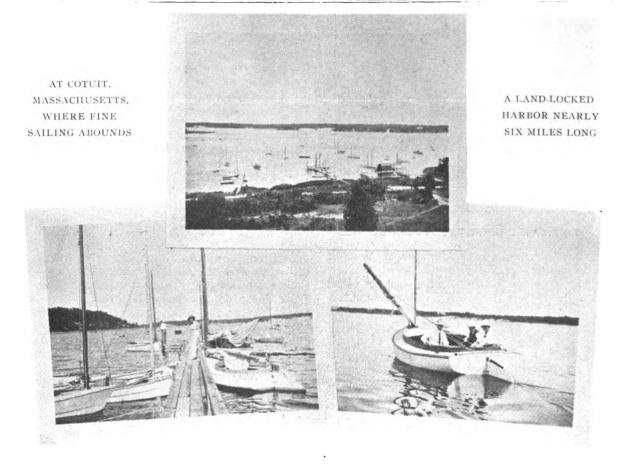
H. E. Smith, Division Supervisor of Supplies, Harrisburg Division, reports this case:

"An evidence of the necessity of an extension telephone in the house was manifested several weeks ago at the home of Mr. Robert Gilmore, Williamsport, Pa.

"Mr. Gilmore was out of town on a Western trip, and left Mrs. Gilmore and two children at home alone. One night during his absence Mrs. Gilmore was aroused by peculiar noises downstairs in the rear of the house. Somewhat frightened and fearing an outcry would awaken the neighbors, she immediately reached for her extension telephone, by the side of the bed, and called up police headquarters.

called up police headquarters.

"In a very few minutes the police reached the house, but the would-be intruder was scared away. Chisel-marks on the back door were found as evidence of the unsuccessful prowler's work. That extension saved much worry."



'Mid Oysters Waters

Have you ever heard of the Cotuit oyster? Whether you have or have not, it is a delicacy indeed. Cape Cod is its home, and that is also the home of good times for vacationists who like New England's watering places.

However scarce oysters may be in other parts of the country except in the "R" months (i.e. the months with the letter "r" in their names), the delicacies are served continuously in Cotuit, Mass. Summer sailing trips and camping times are here thought to be hardly complete without some of these little oysters in one form or another.

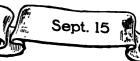
Mr. P. W. England, Plant Engineer, Philadelphia, "loafed" here duing the first half of August. Sailing, bathing and fishing, each occupied his time, but the most of it was devoted to playing the "skipper" of a "cat-boat."

playing the "skipper" of a "cat-boat."

Experience in sailing had been gained chiefly around the Boston harbor shortly after graduation eighteen years ago and just prior to entering the telephone business, so that sailing was not unfamiliar to Mr. England. At Cotuit there is a safe land-locked harbor five or six miles long, but some of the sailing trips extended that far into the open sea.

Views of the man, the boats, dock and surroundings appear with this brief memorandum.

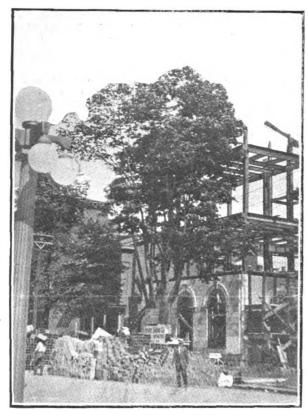
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ittsburgh Division ~ Z.Z.HUGUS. Division Correspondent

Erie District

A man came into the Erie business office the other day with fire in his eye. He said that he had called 55X Long Distance, but the operator would not connect him. A brief interrogation developed the fact that he had not named the town wanted, nor would he give this to the operator. He thought at first that "long distance" was sufficient.



OUR ERIE, PA., BUILDING UNDER CONSTRUCTION

Mr. Young, the Local Manager at Warren, reports having signed nine applications for a service line to be connected with the Warren (Pa.) exchange. SCHAUBLE.

Johnstown District

In order to permit the completion of a call, made from a public telephone in the Johnstown business office, one of our young woman clerks quieted a crying baby for the mother who was talking. Surely this is service par excellence.

One of the Johnstown newspapers printed an article the other day that explained to its readers the recent improvements that the Traffic Department of our Company has made, such as the pronouncing of calling numbers more distinctly, the abolishing of complex phrases, etc.

A busy report from the Traffic Chief furnished the Greensburg Local Manager with information from which three stations of a four-party line were superseded to individual line service. All work was completed on the day on which the report was received and incidentally the annual revenue was doubled. SMITH.

Pittsburgh District

About 2:30 the other morning fire broke out in Braddock, Pa., and Mrs. Anna McLaughlin, our night operator, was told by telephone that her home was in flames. She did not advise her su-

perior of the misfortune but remained at the switchboard until regularly relieved by the day operator. Despite the fact that her home was entirely destroyed, she returned to her duties the next night.

A Pittsburgh man who some sixteen months ago contracted for service and paid \$9 in advance recently removed from the city. He canceled his service and asked the Company to refund his \$9. No difficulty was encountered in showing how the advance payment had been credited on his first bills.

The Pittsburgh Contract Manager received a telephone inquiry from a North Side subscriber asking what rate we would quote for a wire from the telephone to her kitchen for attachment to an electric iron.

A Pittsburgh cable foreman, whose supervisory duties require him to travel about in a motor car, came upon one of his gangs ready to pull a 25pair cable into underground conduit, but without a team of horses to do the work. Rather than have the job delayed he "harnessed up" the roadster and in a short time the cable was in place.

Uniontown District

While visiting a camping party near Masontown, Pa., a prominent attorney of Uniontown was drowned in the Monongahela River. Some immediate friends of the deceased were enjoying an automobile trip near the Erie District and their friends were very anxious that they be located. It was not known exactly where they could be found, but a call was placed at Uniontown and the best obtainable information as to their whereabouts given. The search was begun late in the afternoon, and before seven o'clock in the evening the desired parties were found and the message delivered at the Riverside Hotel, Cambridge Springs. Had the parties been at the hotel instead of driving, the message would have been delivered an hour sooner. The friends at Uniontown were very thankful to the Bell for assistance and quick service.

A Uniontown subscriber placed the following call with one of the operators: "Mrs. calling a red-headed Dutch girl living on hill at Brier Hill; do not know her name; she just moved there; she worked for me at one time. Please call her for me." Evidently this subscriber thinks there is just one red-haired Dutch girl living in or near Uniontown.

A West Newton physician told our Connellsville agent of the great benefit which our recent extension of service line development is to him. Prior to the construction of these lines, farmers postponed all except urgent calls for the doctor until evening, when more time and teams were available. Then he had to travel in all directions. Now, besides avoiding many of these trips, he is able to give hurried telephone directions and check complications until he can go in person. MISS HEPPLEWHITE.

Wheeling District

From an editorial by the editor of the Uhrichsville Chronicle on the occasion of his visit:

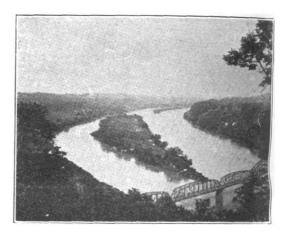
If every subscriber could see the work going on in an operating room, and witness the difficulties and annoyances with which an operator must contend, he would add his quota to her comfort by making requests in a pleasant fashion, and rest secure in the conviction that the young woman at the other end is doing her best to give him good service.

"This is a new idea and a good one, inviting subscribers into the operating room; it furnishes information necessary for a better understanding between the public and the telephone folk.

Orders have been placed in the hands of the East Liverpool Plant Department for the installation of P.B.X. service for the Pittsburgh Crucible Steel Company of Midland, Pa. The application obtained by Manager Swaney covers nineteen stations and is but a preliminary to the future of this branch when the new \$7,000,000 plant of the Steel Company is completed.

Lineman Hartman, sent to repair a toll line. found the trouble caused by a tree felled across the wires, and asked the farmer why he had not notified us when he caused the damage.

"Wall, when your man was through these parts. I sez why is them numbers on poles and he says so as you could tell whare trouble was, and I reckoned yu'd know it as soon as I could 'phone.' MISS DIEHL.



ALLEGHENY RIVER ABOVE OAKMONT, PA

Oakmont, Pa.

By Paul B. Findley, Plant Engineer's Office, Pittsburgh

O the visitor perhaps the second impression of Pittsburgh is the row upon row of hills which ring the city. Beautiful they once were before the smoke robbed them of verdure, and farther out under clearer skies the scenery is magnificent. But these very hills make it difficult for the seeker after summer pleasures to find suitable resorts within a reasonable distance of the city, especially where water sports are desired. The Ohio and Monongahela Rivers are so crowded with traffic and polluted by industry that they are out of the question for aquatics, but the Allegheny preserves much of its old-time charm. Hence, from the city limits up it is popular with the boaters, and nowhere so much as at Oakmont. This reach of the river is about six miles long, extending past Verona. Oakmont, Hulton and Cheswick. At Verona are the older and larger canoe clubs in attractive buildings, and providing living accommodations for many of their members who come into the city daily. Beginning at Oakmont, and running up the river for two miles, are summer camps and bungalows of every degree of elaboration. from those equipped with Bell telephone service. gas, water and electricity, to the single tent with its open fireplace in front. Of the Oakmont organizations, the Boat Club is the headquarters of the residents, while the Motor Boat Company offers to the public canoe racks, slips for motorboats, and all the other facilities of a club.

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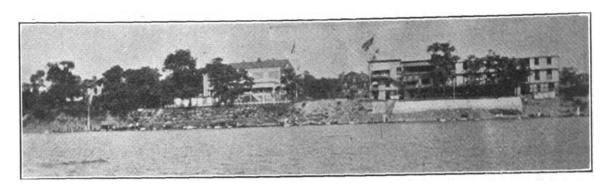


Every evening canoes and motor-boats glide up and down the river, but from Saturday noon until Sunday evening the crowd is greatest. From the "Saturday Special" on the P. R. R. the holiday-makers come in droves,—the men laden with baskets, their fair companions with sweaters and cameras. They paddle or motor up the river to some of the many shady spots on the banks, and the bracing air helps them do ample justice to their commissary department. As twilight falls the jack-o'-lanterns are lighted, and here and there someone strikes up a song, joined in "close harmony" by his companions. Across the water come the strains of a phonograph, softened by the distance, and later from some club the music of the dance. At last the candles flicker and the parties turn homeward, but content with the peace which a respite from Pittsburgh's confinement has brought them.

For those who desire more formal surroundings the camps provide meals second to none. Their colored chefs, brought from the city over Sunday, are wizards, and the appetites which their guests bring to the table leave little to be "cleared away." Then follows a lawn fête or a dance at one club or another, and several times a year everybody contributes to a fund which brings "Danny" Nirella and his band up from the city. A flat-boat is hired and towed slowly up the river, surrounded by canoes. Those nearest grab the sides of the flat; the rest hold on to the adjoining canoes, and when the flotilla, illumined by its lanterns and flares, is set dancing on the waves of a passing motor-boat, the sight is one long to be remembered.

While many of the camps are week-end affairs. the majority are those of city men who rise with the sun, get breakfast, and are off to town in time for business. Four men from our Pittsburgh Engineering Division have spent the summer in this way and say that never again will they spend a summer indoors. Some of the camps have been occupied for years and are models of cleanliness and comfort. The fancy of the owners runs to peculiar names, some of which are "Tippy Canoe," "Eonac," "Ecalap," "Allojo," "Arcola," "Laetus," "Ad Libitum" and "No-Kix-Go."

In all the social and business arrangements of river life the telephone plays an important part. The district is served mostly from our Oakmont central office, a No. 9 common battery switchboard serving 483 lines and 1014 stations. The Oakmont Motor Boat Company has a No. 505 cordless P.B.X. with two trunks and five stations, and the various clubs have direct line public tele-



BUILDINGS OF OAKMONT BOAT CLUB AND MOTOR BOAT COMPANY

At Hulton is a small houseboat where soft drinks, ice-cream and sandwiches are sold, and the desk stand installed here may be used while seated in a boat outside. This station serves many camps on the island opposite and, as it does a heavy toll business, is provided with standard signs. We are thus enabled to present our readers with another picture showing that "The Bell Telephone Reaches Everywhere."

How to Crank an Automobile

Several of this Company's men have recently had their arms broken from cranking automobiles, caused by the "kicking back" of the crank handle in starting the motor. This so-called "kick-back" is usually caused by an attempt to crank the motor with an advance spark on battery or with a fully retarded spark on magneto.

The sparks on all cars with battery and coil ignition should be retarded when started, because a battery furnishes a constant spark, and when the distributor is turned by the action of the motor, a direct connection is made between the coil and spark-plugs, resulting in a continuous spark or ignition in the cylinder, no matter how slowly the motor may be turned over or how long it may stand in a position with all connections open from the spark-plugs to the batteries. If the spark lever is placed at "advance" on the battery position, the ignition will take place before the piston has reached the top of its stroke. When this happens, the explosion drives the piston in the direction opposite to which it should travel, causing the direction of the crank handle to be reversed, and frequently resulting in an accident.

When starting on magneto it is usually necessary to advance the spark lever about two-thirds of the distance on the quadrant, because the motor should be running in order to generate a current in the magneto. If the spark lever is left fully retarded, ignition will not take place until the piston has started down on its working stroke, with considerable loss of compression and failure to fire, unless the engine is turned very rapidly.

If the magneto spark is advanced, the engine being turned rapidly, the spark will act on the maximum compression and explode, driving the piston down and turning the crank shaft in the proper direction.

The proper point in which the spark and gas levers should be placed on a particular car must be learned from observation.

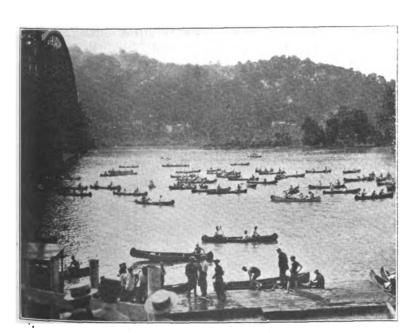
If the suggestions given above are followed it will be found that motor cars will be started much more easily, and that the danger of accident will be eliminated.

How'd You Like This?

There are perhaps as many opinions regarding the most desirable kind of summer outing as may be found on any other general subject. Some want to travel, some to camp, some to visit relatives and friends, some to take brief outings, and some prefer to stay right at home.

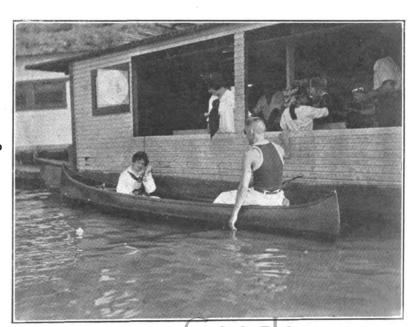
Mr. H. S. Putnam of the Rights of Way Division, Pittsburgh, writes as follows:

"I had a very pleasant time, and a very quiet one, at home with my family. I felt as if probably one of this kind would be vastly more conducive to a rest and pleasant time than to go out to some wilderness and become a mark for the pests that generally assemble, in unusually large numbers, to make life a burden to those who go in search of a fine time with lots of excite-



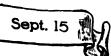
LEFT: A SUNDAY AFTERNOON CANOE CROWD

RIGHT: USING THE BELL AT ICE CREAM BOAT



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The Filbert, Philadelphia Switchboard

HEN the attractive six-story brownstone building was completed in December, 1897, and the executive offices were removed from 406 Market Street to Eleventh and Filbert Streets in January, 1898, it was expected to supply the executive needs of the Company for an indefinite period. Within two years, however, it was outgrown. The building at Seventeenth and Filhert Streets-erected for operating rooms, supply department and for Equipment and Maintenance forces—was required and the executive offices were again moved February 11, 1902.

When completed, the building was considered the best type of fireproof design of its kind. Changes in the art of fireproofing have recently justified alterations costing approximately \$30,-000. All windows have been equipped with metal frames, metal sash and wire glass. Along

The Walnut switchboard, which was cut into service October 4, 1902, occupies the fifth floor and the terminal room the fourth. On the third floor are the operators' rest, lunch, locker and retiring rooms. The second floor is occupied by the Plant Superintendent Eastern and the first by the Traffic Superintendent and Division Manager for approximately the same territory.

A New Telephone Transmitter

A new telephone transmitter has been devised by Dr. Glover, a prominent physician of Paris. Its special feature is a nosepiece intended to catch nasal sounds occurring so frequently in the French language and lost when the ordinary mouthpiece is used alone. Dr. Glover's invention is based upon the fact that vocal sounds coming from the larynx are split into two streams at the palate, one of which emerges at the mouth and the other at the nose. The new transmitter is intended to collect both sound-streams.

PART OF FILBERT, PHILADELPHIA, SWITCHBOARD

the corridors the heavy oak doors have been replaced with metal doors.

The cut-over from Market to Filbert April 14, 1899, took 369 lines and 480 stations from Market, and on July 15 of that year 512 additional lines and 708 stations were transferred. This work was done under the supervision of Mr. W. T. LaRoche. The Filbert switchboard, still in service, was one of the first of the common battery multiple type used anywhere. The improvement over that at "Market" was that "Filbert" was of the multiple type. In the northwest corner of the top floor of the Filbert building is the Filbert terminal room. Just south of the partition along Eleventh Street begin the "B" positions, followed by the "A" along the south side of the room, and finally more "B" positions on the east side.

In the view of the Filbert section shown on this page the "A" positions are most in evidence.

The Filbert switchboard was originally installed on a four-battery basis. One 2-volt battery was used for operators' transmitters, one 4-volt battery for line lamps, one 8-volt for supervising lamps, and one 20-volt for talking purposes. In 1904 this was transferred to a 22-volt single-battery type, since used to supply current to all of the service in the switchboard.

Educational Opportunities

For those of us who live in or near Philadelphia and are employed during the day, there are ample opportunities to continue school advantages in industrial and technical lines. Among the institutions offering courses at either moderate fees or none at all may be mentioned those listed here. As previously mentioned in our paper, the advantages to be gained by devoting a definite amount of time each day to mindbroadening work, quite apart from regular occupation, are self-evident. Not only may more be learned of one's own duties and the associated work, but opportunities are enlarged and the earning power increased.

The list of Philadelphia and Camden evening courses is typical perhaps of those offered in other large cities in our territory. We will gladly print memoranda of them if our readers will forward the data.

In Philadelphia and vicinity the institutions have now a common interest in each other and are aiming by general circulars to aid the seekers in choosing the courses most adapted to their purposes regardless of which school may be chosen. The Industrial Education Conference of the zoology botany, geology and physics.

Public Education Association (Filbert 32-80) in the Witherspoon Building, Walnut and Juniper Streets, acts as a clearing house and will furnish information regarding these courses upon request.

At Drexel Institute in 1912-13 there were 1665 persons enrolled in evening courses, of whom 50 were from Wilmington. Of the Drexel Institute students, our Company, the General Electric, Philadelphia Electric and Philadelphia Rapid Transit Company furnished 66. Probably 4000 men were enrolled in all of the schools here listed.

BOARD OF PUBLIC EDUCATION School District of Philadelphia, Public Evening High Schools for Men: Central, Broad and Green Streets; Northeast, Eighth Street and Lehigh Avenue; Southern, Broad and Jackson Streets. Courses in languages, mathematics, sciences, history, economics, law, electricity, drawing, accounting, stenography and typewriting.

> CENTRAL EDUCATIONAL INSTITUTE Central Branch Y. M. C. A. Arch Street above Broad Street

Architectural drawing, mathematics, building construction, plans and specifications, heating and ventilating and principles of engineering. Power plant engineering, applied electricity, mechanical drawing, practical chemistry, physics and laundry chemistry.

Drexer Institute

Thirty-second and Chestnut Streets Departments of Architecture, Mechanic Arts, Science and Technology. Drawing and building construction, wood-working and machine construction. Chemistry, mathematics, physics; civil, mechanical and electrical engineering, including applied electricity and telephony.

Franklin Institute School of Mechanical ARTS

Seventh Street below Market Street Drawing, mathematics, mechanical and electrical engineering, naval architecture, building construction and applied art.

PHILADELPHIA TEXTILE SCHOOL Broad and Pine Streets Various subjects incidental to spinning, weaving, knitting, dyeing and designing.

THE PHILADELPHIA TRADES SCHOOLS (1) Twelfth and Locust Streets; Annex. Seventeenth and Pine Streets. (2) Evening sessions only—Howard Street below Girard Ave-

Ordinary trades, drafting, electrical construction, patternmaking and printing.

Spring Garden Institute Broad and Spring Garden Streets Drawing, metal-working and electricity.

TECHNICAL EVENING SCHOOL Haddon and Newton Avenues Camden, New Jersey Technical drawing, wood-working metalworking and mathematics.

TEMPLE UNIVERSITY Broad Street below Berks Street Mathematics, civil engineering, chemistry, pharmacy, drawing and telegraphy.

WAGNER FREE INSTITUTE OF SCIENCE Seventeenth Street and Montgomery Avenue Engineering, inorganic and physical chemistry

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When "Plant" Goes Fishing

HIS story covers some of the events of a deep-sea fishing trip enjoyed Monday, August 18, by Messrs, LaRoche, Kunkel and Moody as well as by Mrs. LaRoche and Mrs. Kunkel.

The Plant King and his Eastern Superintendents have been taking these trips once a week for two months or more. Mr. Moody, for example, has taken his whole 1913 vacation this way, and vouches for the benefit obtained through frequent brief trips when they do not interfere with the job.

Mr. LaRoche, who is an enthusiast of twenty vears' South Jersey fishing experience, is said to know from the nibble whether the cause of it is a flounder, a weakfish, a croaker, a sea-robin or a shark! He is the first to get his line in the water, the last to wind up his reel when the trip is ended, and always leads in the catch. When the line is in the water his patience is unbounded. Half-day fishing trips with the time limited aren't popular with Mr. LaRoche! The General Superintendent claims that the amount of catch depends largely upon the way the tackle is rigged; another member of one of his parties disputes this, saying, "It's the man, for Topied Mr. La-Roche's outfit, style of cast and patience with nowhere near the same success.

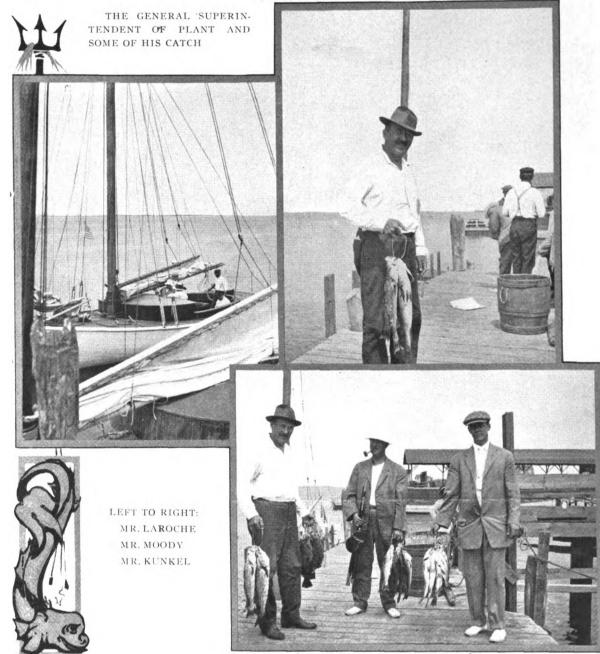
()n August 18 the fishing party embarked at ()cean City, N. J., on the "Mayme Sheppard" a regular fishing yacht known along the New Jersey coast as a "catboat." Mr. LaRoche used a new agate-bushed pole and carried his hooks in a special pocketbook. As usual, he changed his sinker from light to heavy, depending upon the kind of fish expected, rigging his dipsy (double hook arrangement) in a way that out-Izaaked a well-known Mr. Walton. Either a rectangular or a kite-shaped sinker was a favorite as nibbles and hopes changed from flounders to weakfish. Not infrequently a skate took the hook and, as he was drawn near the boat, blows from the wooden boat-fenders tempered his obstreperous flopping.

Deep-sea fishing of this kind is usually done about three miles from the coast, and the boats leave the docks at about 7:30 A.M., returning at 1:30 P.M. We say returning with perfect assurance, for the boats have gasoline motors to promise their occupants that they will get back even if calms lower their hopes.

On one of these trips a thirty-inch dog-shark foolishly grabbed a hook and caused somewhat of excitement, but was hauled in with the frequently displayed experience and determination that was so evident at such times.

In the trip that we have illustrated, Mr. La-Roche caught the most and Mrs. Kunkel the largest fish. To her, by right of dower, also goes the party's flounder record, inasmuch as Mr. Kunkel is alleged to have caught the largest flounder several years ago. The boat captain pulled it in, however, on his own hook and line. On one or more occasions both hooks on Mr. LaRoche's line brought in simultaneous catches. When a nibble was recognized, the General Superintendent could be heard to mutter, "He's playin' hoss with my line!" and shortly after the reel would be wound up with all speed imaginable.

With other parties, a large percentage of the total catch may tear away from the hooks before being landed, but this has not happened with Mr. LaRoche's parties, as may be seen from the showing made when the photographer "caught" them all at the dock. There was a weighing episode also when Mrs. Kunkel's prize weakfish reached the boat landing. No one boasted the



highest catch of croakers, for the croaker hasn't savory reputation where "Plant" fishes.

Mr. Kunkel, who said he came for the sail, was satisfied with a hand line. Mr. Moody fished with rod and reel, and on both occasions also had good success.

Both Mrs. Kunkel and Mrs. LaRoche-who are excellent sailors—had satisfactory catches. The skipper, knowing the "grounds," shifted his boat often so that his party could show a successful trip.

At times Mr. LaRoche has fished and been caught in the rain. While the others have given up and withdrawn to the cabin, he, with true sportsmanship, has fished as patiently as if the sun were shining. Patience and science are his fishing characteristics. Also he always insists on distributing the choice fish among the others in the party.

All he wants to do is fish,
All the year around;
Somewers up or down the creek
Ev'ry day he's found.
An' he's wond'rin', by an' by,
If he'll git his wish:
If ol' Jordan will provide
Him a place to fish!

Office Removals

On August 21 the offices of C. C. Brown, Traffic Engineer, and of J. S. Beckman, Traffic Engineer of the Philadelphia, Atlantic Coast and Eastern Divisions, were removed to the eighth floor of an office building at 1211 Arch Street, Philadelphia. In these offices are now located C. P. Gallaher, W. P. Wattles, J. A. Fitzpatrick and M. J. Kimball, Assistant Traffic Engineers, A. M. Kite, H. P. Patchett and W. G. Moffett, clerks, C. R. Burnett, draughtsman, Miss R. McKenna, stenographer, and G. J. Dougherty, messenger.

The office of W. W. Young, Supervisor of Traffic, is now on the fourth floor, 1230 Arch Street, and that of F. B. Evans, Traffic Superintendent, Philadelphia, is on the fifth floor, Seventeenth and Filbert Streets, Philadelphia.

It's Everywhere

Telephone service is being installed at the summit of "Old Baldy," in California, 11,000 feet above sea level. The Government is establishing this service for the use of the warden to report forest fires. W. B. Dewey, a former guide, now has a camp at the summit from where he can see the smallest fire and give instant infor-This will be the highest mation to the rangers. telephone station in California.

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A NOON HOUR PHOTOGRAPH OF APPROXIMATELY NINETY PER CENT. OF THE WESTERN ELECTRIC COMPANY EMPLOYEES IN PHILADELPHIA

THE reproduction on this page will give the readers of THE TELEPHONE News a fair idea of our numerical strength but not of our deportment or artistic ability.

Those who attended the last meeting of The Philadelphia Telephone Society in the Metro-politan Opera House during May heard with favor the musical and theatrical ability of some of our people.

There are few, however, who know how many busy typists, clerks, stenographers, stockmen, comptometer operators, claim clerks, packers, shippers and others-each expert in his own line who handle the voluminous orders received from The Bell Telephone and its Associated

The Philadelphia house of the Western Electric Company handles two distinct classes of orders, telephone and supply. These departments are distinct and separate in their particular lines of work. Each department maintains its own stock, works towards its ideal of one hundred per cent, efficiency and is responsible to a unit for each transaction.

In making our initial bow to the readers of this publication we do so with a feeling that all readers will be interested in hearing of the doings of our organization. It may be interesting to read our history from now on somewhat in chronological form.

[This photograph will probably serve as an introduction to the Western Electric Company force, as well as to the others, that news of such happenings as are of general interest are welcomed in our paper. Communicate with Mr. G. G. Young or with the Editors direct.]

Organization Changes

The Bell Telephone Company of Pennsylvania

G. R. Keim at Carlisle, Pa., has been advanced from Plant Wire Chief to Plant Chief and his office has been removed to Chambersburg.

Alfred Markle, formerly Engineering spector, is now District Engineer, Allentown, Pa.

C. Reifsnyder, formerly inspector, P. D. La-Roche and W. L. Bumgardner, draughtsmen at Allentown, have been appointed Engineering In-

R. R. Sterner, a former installer, has been advanced to draughtsman at Allentown.

R. I. Endress, formerly a clerk, is now a Storekeeper at Erie, Pa.

The Central District Telephone Company

Miss Georgia Scott has been appointed Cashier at Clarksburg, W. Va.

G. W. Thrall, formerly District Line Foreman, has been made Construction Foreman, Wheeling,

T. F. Irvine has been advanced from Equipment Inspector to Plant Chief, Wheeling District.

12,000 Strong

The employees of The Bell Telephone Company of Pennsylvania and Associated Companies join in an expression of congratulation to Mr. Kinnard—and to the Companies—upon his completion of twenty-five years of Bell telephone service.

"What Time Is It?"

Close estimates were made a few days ago throughout the territory of The Bell Telephone Company of Pennsylvania and Associated Companies, to determine as accurately as possible the cost of answering the recurring question, "Wha time is it?" It costs us \$60,000 a year.

Throughout the business day—sometimes in the busiest periods—the operators are asked again and again this question. Then when the other operators replace them, they in turn ar interrogated. Even in the night hours and when daylight is returning, "What time is it?" is always being asked.

Sometimes the clocks have been allowed to ru down, or vacation is over and the house has again been opened, or it is too dark to make a light or the reliable clock is on another floor, or the telephone is nearer than the man with a watch or train or meal time is approaching, and the inquirers are not sure of their own information. Whatever the cause, from one border to dea other, our operators are requested to inform questioners.

Our Traffic Department, recognizing this part of the service expected by the public, h taken measures to handle it thoroughly and we Perfect willingness is to be exhibited as well as the aim to be accurate. Even phrases have been selected expressing the greatest willingness to serve in this particular when the subscriber asks the time.



SUPPLEMENT TO THE TELEPHONE NEWS

The Mosquito, Its Relation to Disease and Necessity for Its Extermination

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee

HE extermination of the mosquito is called for not only because it is a source of annoyance to those who live in districts infested with this insect, but rather because it transmits disease. In order that the public may aid in carrying out this important sanitary measure it is necessary that we should know something of the habits of the mosquito and the manner in which it lives and breeds.

During the last century it was suggested that insects might in some way act as a medium of infection, although but little was done in the investigation of this subject until about thirty years ago when Dr. Laveran, a French army surgeon on duty in Algeria, discovered in the blood of malarial cases under his care a germ or organism which he believed to be the cause of this disease. He announced the discovery to the Paris Academy of Medicine, and his statement was afterwards fully confirmed by other investigators. Then came the question as to the means by which these organisms are introduced into the horsest lady. duced into the human body. This led to extended research and experimental work extended research and experimental work and resulted in securing conclusive proof that malaria is transmitted by a variety of mosquito known as the "anopheles," and that so far as we know at the present time there is no other way by which this disease can be communicated.

Not long afterward further evidence was presented as to the danger of the mosquito as a medium of infection. This ocurred during the occupation of Cuba by the United States when a commission, com-

the United States when a commission, composed of medical officers of the United States Army, was appointed by the President and directed to proceed to Cuba and, if possible, identify the germ of yellow fever and the means by which it is transmitted. While the former has not yet been discovered, the commission was able to discovered, the commission was able to present indisputable evidence that this disease is also transmitted by the mosquito and, as in the case of malaria, there is at present no other known means of infection. The variety of the mosquito which transmits yellow fever is called the "stego-

myia."

Thus it has been proven that two diseases which in the past have caused great suffering and loss of life throughout the world are transmitted only by the mosquito. More recently it has been found that other diseases are also conveyed from one person to another in this way.

Malaria is very generally distributed throughout the world, while yellow fever occurs only in certain sections, such as South America, West Indies and the southern part of the United States, depending of course on the presence of the "anopheles" and the "stegomyia."

These important discoveries have been

These important discoveries have been followed by great activity in the way of mosquito extermination in different parts of the globe, the earliest and most effective work being done in Italy, for this country had long suffered from malaria to such an extent that even the value of her army had become seriously impaired. The great flats or swamps in the vicinity of Rome, known as the Campagna, were found to be notorious breeding places for the mosquito, particularly the "anopheles," and malaria under the name of "Roman fever" has in the past been a familiar term and a cause of great danger to many travelers who have visited there.

The work undertaken by the Italian government was followed by the most brilliant and satisfactory results. Greece also has been a great sufferer from malaria, for at one time almost a third of its population was affected by this disease, but with the aid extended by Italian experts the mosquito has been largely eliminated from that section of the world.

The United States Government deserves

the credit of having carried out the most successful campaigns against the mosquito which have yet occurred. This refers to the extermination of this insect in Cuba and in the Canal Zone.

Previous to the Spanish War yellow fever constantly existed in Cuba and was a great menace to all who visited the country and were not immunes. Now Cuba is practically free from yellow fever, and there is but little or no danger there from this disease.

from this disease.

It is quite well known that work on the Panama Canal some years ago under the direction of the French was discontinued because the malaria present could not be controlled, and it was impossible to secure a sufficient force of workmen in good physical condition. Practically the same methods which were employed in Cuba were carried out in the Canal Zone, and with the same satisfactory results, and malaria so far as interfering with the construction of the canal has been a negligible

Curiously enough, while the United States Government has in other countries secured the most brilliant results in the way of mosquito extermination it has done practically nothing in the way of protecting its own people against the danger of this insect, for whatever work of this kind has been carried out in this country has been the result of activity on the part of the various states, municipalities, or through private enterprises.

Mosquito extermination has long since

passed the experimental stage, and there is no doubt as to the success of this work if proper methods are employed.

Mosquitoes propagate only in water, upon the surface of which they deposit their eggs, sometimes 300 or 400 in number. Usually within twenty-four hours after-Usually within twenty-four hours afterward the eggs are hatched, and the larvæ drop into the water. These little bodies, commonly known as "wigglers," when full grown are about one-quarter of an inch long, although at first they are very small and may not be detected by the naked eye, except by those familiar with the propagation of this insert, however, after a day tion of this insect; however, after a day or two they may be easily recognized. A

very interesting way of studying the further propagation of the mosquito is by having the water containing the larvæ placed in a glass and in front of the light. They will then be seen moving about in the water in a very rapid and jerky way. It is interesting to note that while the larvæ cannot live out of the water they must also cannot live out of the water they must also have air, and for this reason will every minute or so rise to the surface above which they extend their tail, for this contains the opening of the respiratory apparatus. ratus. In other words, it may be said that a larva breathes with its tail.

After a period of six or eight days it will be noticed that the head of the larva becomes enormously enlarged and in appearance very much resembles a "comma" (1). This is the pupal stage and is present about two days preceding the birth of the mosquito. The pupæ will be found rather inactive, except when frightened, and lie close to the surface of the water.

If the observer has sufficient patience to watch the phenomenon carefully, the pupae will be seen to rise to the surface for the last time, when gradually the envelope or covering which surrounds them is broken and the full grown winged insects appear. They hesitate for a moment, resting on the envelope or shell in order to get their bearing, and then fly away.

while there are many varieties of mosquitoes throughout the world, it will be sufficient for the purpose of this article to refer to those which are commonly found in the United States. Two classes may be described, the "inland" mosquito and the "sollicitans," also known as the "salt water swamp," and the "striped legged" or "Atlantic Coast" mosquito.

The most common inland mosquito, the "culex pungens," is also known as the "house or rain barrel" mosquito and is the one usually found indoors. It is of medium size with rather a thin body, its color ranging from a deep yellow to a dark brown, with legs of practically the same shade, having no markings or bands on the back or feet. The "anopheles" or "malaria" mosquito is a variety of the "inland" mosquito, and if carefully examined will be found to have wings which are spotted with brown or black, and when at rest its body is almost at right angles with the surface, while the body of the "culex pungens" or common "house" mosquito is parallel to it. The most common inland mosquito, the parallel to it.

The "stegomyia" or "yellow fever" mosquito, also of the inland variety, is found only in the southern part of the United only in the southern part of the United States and has the reputation of being the most attractive of all mosquitoes. It is comparatively small, with brilliant stripes on its abdomen, chest and legs; however, the latter are not so pronounced as in the case of the "striped legged" mosquito; besides, it has no transverse stripe on its beak (the rod-like process extending from the head), which is found in the latter. Both the "anopheles" and the "stegomyia"

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central office trated in our r by the Ennent Septemt-over of the ipated. Then The buildor just egun

ock-

day) report man chalk up 819 new trouble cases as early as 8:15 A.M. Later, when that fellow got his hand in, the gross numbermounted to (Continued on Page 5)

Some Timely Topics. Come and start the society's year with a record-breaking attendance—8 o'clock sharp. (Continued on Page 16)

in September, 1912. Locate land Streets (4900 north), (Continued on .







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SUPPLEMENT TO THE TELEPHONE NEWS

are notorious house mosquitoes and remain

close to their breeding places.

The "striped legged" mosquito is not often found in the house but usually carries on its attack outside. It is easily recognized with the naked eye by broad white transverse stripes on its legs and a white broad transverse stripe on its beak. This mosquito is found along the Atlantic Coast and it propagates in such enormous numbers that some of the coast towns are

numbers that some of the coast towns are almost uninhabitable.

Formerly it was believed that all varieties of the mosquito breed wherever water can be found. Now we know that the "inland" mosquito will not breed in salt water swamps and that the "sollicitans" or "striped legged" mosquito will not breed inland. This knowledge is of great value. This knowledge is of great value inland.

in the extermination of these insects.

The breeding places of the "inland" variety are so numerous that they commonly escape detection even on the part of those who are making careful search for them, and for this reason the extermina-tion of this mosquito is often very difficult. About the premises they usually consist of such receptacles as old tin, crockery, and glassware, cesspools, drains, unused water trough, rain water barrels, cistern, broken roof leaders, etc. Urns in cemeteries, statuary in parks, excavations for new buildings, street sewers, water tanks, etc., are also common breeding places.

Contrary to the general belief, mosquitoes do not breed in large bodies of water unless these are particularly rich in organic matter; however, they will breed along the edges in depressions made by the hoofs of animals which come to drink. They prefer small pools rich in vegetation and where

small pools rich in vegetation and where they may be quiet and better protected.

While a few varieties of the "inland" mosquito, probably the "anopheles" and the "stegomyia" among them, may prefer cleaner water for breeding, the more common types prefer that which is contaminated and filthy, for it contains more nourneshment for themselves and for the future larvæ; therefore, the additional danger of filthy and stagnant water is apparent.

As already stated, the "striped legged" mosquito breeds only in salt or brackish water and not inland. Those who have not seen the great swamps along the At-

not seen the great swamps along the Atlantic Coast can form no idea of the enormous number of breeding places they supply in the form of depressions on the surface which are more or less constantly covered with water from the incoming tide.

Mosquitoes are essentially vegetarians and live on plants, fruits, etc., although the females, the only ones which bite, crave blood, as those living in the mosquito infected districts will testify.

The larvæ are voracious eaters and they move rapidly about in the water in quest of food which they find in little particles of organic matter. Probably but little or no food is required during the pupal stage, for this is preliminary to the birth of the mosquito.

It is commonly believed that mosquitoes live only a day. There is no truth in this, and although it is very difficult to estimate their life cycle, it may be said that the female probably lives two or three weeks and the male but a few days.

Probably no detail connected with the subject of the mosquito has been more

subject of the mosquito has been more thoroughly discussed than the distance which they travel from their homes or breeding places. The "inland" mosquito is not a migratory insect and usually remains close to its breeding place, probably within four or five hundred feet of it unless four or five hundred feet of it unless blown away by winds. This knowledge is

of great practical value in the extermina-tion of this variety, and if it is found in large numbers about the house it may be properly assumed that the breeding place is not far away.

On the other hand, the "striped legged" mosquito voluntarily will go many miles

from home.

The sudden appearance of a large numhave been brought from a distance by wind, and if the direction from which it blows is ascertained, considerable information may be secured as to the situation of the breeding place.

There is no doubt that mosquitoes are carried from one place to another over long distances by modern means of travel. This will explain the appearance of these insects in certain sections of the country which heretofore have been free from

Mosquitoes are particularly active at night and it is then that they breed and bite. During the day they collect in the tall grass and bushes evidently to rest and to escape the light and heat; this growth also protects them during rain storms.

The sudden appearance of these insects in Ine sudden appearance of these insects in large numbers immediately after a storm has subsided will often be noticed. The importance of removing this growth about the premises whenever it is practical to do

so is evident.

The question is very naturally asked in what way do mosquitoes perpetuate their species from one season to another. In some varieties, as the "stegomyia" or "yelmosquito, which are found in tropical or very warm countries, there is more or less continued propagation of these insects; however, where there is a decided climatic change, as in the more northern section of this country, or wherever the temperature remains below 70°, some of the female mosquitoes are perpetuated through the cold weather in a state of hibernation or torpor. Late in the fall seek some warm, protected place, preferably cellars, stumps of trees, barns, etc., and here they remain in a dormant condition until the warm weather returns in the spring, when they become active again, seek a breeding place, lay their eggs and die.

In late years a very curious and interest-ing thing has been discovered in connec-tion with the "striped legged" mosquito. It is found that this variety, instead of hibernating in the form of the winged insect, passes this state in the form of the egg which is imbedded in the soft earth of swamp and remains there until it is washed out by the warm tide water in the spring. It then passes through the various stages of propagation already referred to.

We have now learned sufficient regarding the mosquito to identify and extermi-To do this successfully we must first ascertain what variety we are to deal with in order that we may more easily destroy the breeding place. Away from destroy the breeding place. Away from the coast it is the "inland" variety which is almost always the source of annoyance.

Breeding places must, if possible, be destroyed and not treated, i. e., they should be removed, drained or filled in, that they may not again be available for this purpose. Sometimes this cannot be done, then we depend upon some temporary agent for the destrution of larvæ. The most available agent for this purpose is petroleum oil. This does not poison the larvæ, as it is generally supposed, but suffocates them. We have already learned focates them. We have already learned that the larva extends its tail above the surface to secure air; when the water is covered with oil, the minute opening of

the respiratory tract becomes plugged, and suffocation follows. Crude petroleum does not spread evenly over the surface, for it is too thick, therefore *semi* crude oil must be used. This is much thinner and when be used. This is much thinner and when sprayed on the water immediately forms a film over the surface. In this manner the larvæ are usually destroyed within twenty minutes. A pint of this material is ample to cover an estimated water space of twenty-five feet or more in diameter, and there is no better way of applying it than by the ordinary garden sprinkling pot than by the ordinary garden sprinkling pot than by the ordinary garden sprinkling pot with the holes in the expanded nozzle enlarged to allow the free exit of the oil. This should be applied about every ten days. There is no other temporary agent which approaches the oil in value for the

purpose above referred to.

In dealing with the "sollicitans" or "striped legged" mosquito, it is hardly necessary to state that the use of petroleum oil would be practically worthless for the destruction of the larvæ of this variety, for the salt water swamps are often. the salt water swamps are often many miles in extent and it would be impracticable to attempt to cover the surfaces with this material; therefore, the extermination of this mosquito must depend on another method and this is drainage, for it is only in this way that water may be constantly removed from the swamp. As mosquitoes cannot propagate without water it follows that their breeding places are by this means

destroyed.

This method has been successfully carried out in the United States. The ditches are usually made about ten or twelve inches wide and two feet deep, and from fifty to two hundred feet apart, depending on the character of the swamp land. When large areas are to be drained, the small ditches are made to connect with larger drains, usually three or four feet wide, which conduct the water to the sea. It is true that these become filled when the flood time occurs, but the water remains largely in the ditches rather than on the surface of the swamp and they are practically emptied with the ebb tide.

Suggestions are sometimes made that various kinds of birds, bats, etc., should be propagated in order that they may destroy mosquitoes. Various forms of fish are also used for this purpose in connection with the larvæ in pools and streams. Theoretically these means may appear to be of value, but practically they are worthless, for even an enormous number of birds would make but little reduction of the number of winged insects present. These theories are harmful because they divert the public mind from the only means by which mosquitoes can be successfully exterminated, and that is by the destruction of their breeding places and in no other wav.

School children are often called upon to assist in the extermination of the mosquito as well as the fly, by destroying the winged insect. This cannot be regarded as a desirable, useful or scientific means of extending aid in this important work, for it has no practical value in reducing the number of these insects. State and municipal health authorities should be held directly responsible for the extermination of the mosquitoes by the destruction of their breeding places. Health laws are sufficiently broad for this purpose in every section of the country, for mosquitoes constitute a menace to health. No further proof is needed as to the success which proof is needed as to the success which follows properly organized methods in this work than the results secured by the United States Government in Cuba and in the Canal Zone.

ews or such nappenings welcomed in our paper. Young or with the Editors

join in an expression of congratulation to art. Kinnard—and to the Companies—upon his completion of twenty-five years of Bell telephone been selected expressing the greatest willing to serve in this particular when the substrict

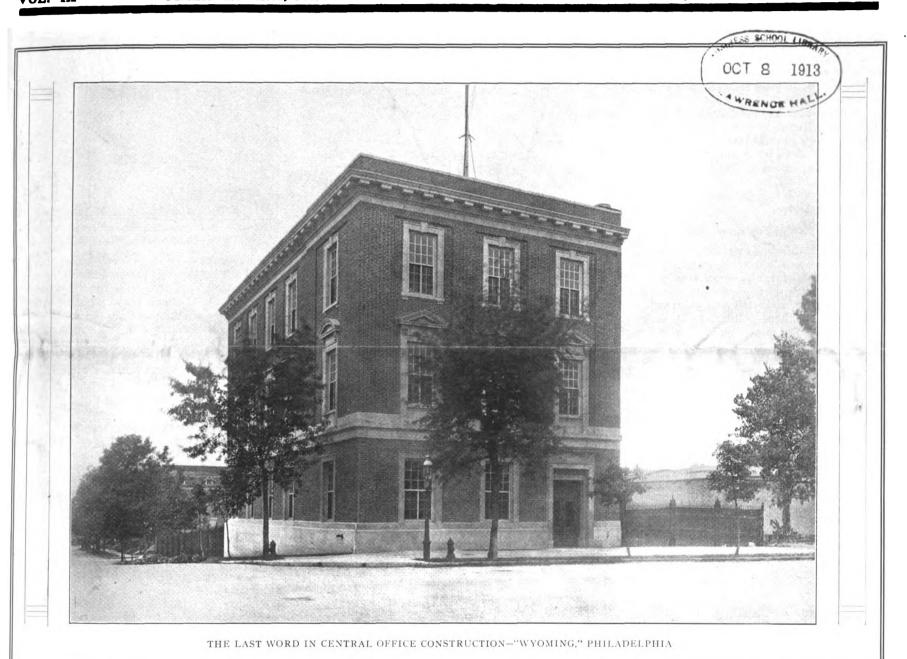
asks the time.

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THE TELEPHONE NEWS

OCTOBER 1, 1913

No. 19



Another Electric Storm

INETEEN THIRTEEN'S batting average on the electric storm report continued to mount to unprecedented figures even as late as September 7. The Philadelphia and Plant Eastern Divisions have experienced a summer that put premiums on vacations, for not only has the Maintenance crowd been kept busy restoring service to Bell grade, but Equipment and Construction forces have also been "much in demand."

Sunday's storm made the September 8 (Monday) report man chalk up 819 new trouble cases as early as 8:15 A.M. Later, when that fellow got his hand in, the gross numbermounted to

(Continued on Page 5)

Our Societies

The Philadelphia Telephone Society

First of season's meetings,
Scottish Rite Hall,
S. W. corner Broad and Race Sts.
Second Tuesday, October 14.

Speaker:
Mr. J. H. Crosman, Jr.,
General Commercial Superintendent.

Subject:

"Some Timely Topics."

Come and start the society's year with a record-breaking attendance—8 o'clock sharp.

(Continued on Page 16)

Wyoming

Philadelphia's Newest Central Office

HE Wyoming, Philadelphia, central office building, mentioned and illustrated in our July 1 issue, was turned over by the Engineers to the Plant Department September 23, and on October 18 the cut-over of the new central office equipment is anticipated. Then 1100 Tioga lines will be transferred. The building has been in course of construction for just about one year, the excavation having been begun in September, 1912. Located at Broad and Rockland Streets (4900 north), it will make the sec-

(Continued on Page 2)



ond of the central offices which our Company has located along Broad Street's 11 3/5 miles of asphalt.

Will Serve Logan

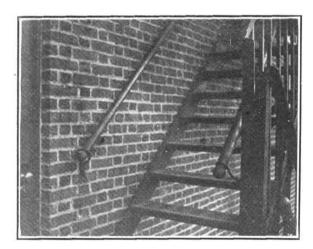
This newly developed territory, known as Logan, is held by its residents as one of the most attractive residential sections within Philadelphia's 129 square miles when altitude, accessibility and locality are considered. The new railway depot, numerous apartment houses and proposed traction subway have done their share in raising property valuations.

All of these reasons have amply warranted our Company's expenditures in a central office equipment that ranks second to none in the number of improvements peculiar to a single building. The estimated cost for the building was \$67,000, the underground work \$5,000 and the

equipment \$88,000. To the fortunate circumstances of having three fire-plugs at Broad and Rockland Streets, our Engineers have provided a hose connection and pipes leading directly to the roof. There another hose connection is arranged so that firefighters may direct streams on near-by burning buildings. In each hallway, connections and hose are also ready for action.

Further Fire Precautions

Throughout this building the doors and windows have received special consideration from a fireman's standpoint. A new type of drawn metal doors with three-point disappearing locks is at all building exits. The locks catch in the door frames at three points, upper, center and lower, so that in case of a serious fire no part of the metal door may warp and permit the flame or



A CORNER OF THE WYOMING FIRE-ESCAPE SHOWING HANDRAILS

smoke to pass. The spring disappears automatically so that clothing may not be torn in them. All of the doors in the building, including those leading to the fire-escapes, are self-closing. The turning of the knobs opens the doors to a person leaving the building, but there is no key and no intention to permit entrance from the outside through these doors except through inside assistance. Nor is it possible to lock the doors to those leaving the building. The windows have metal frames and wire glass, and in those locations where hurried exit is likely to cause the overlooking of them, the running chains are provided with links which melt when exposed to heat, thus causing both upper and lower sash to close automatically. Fire-alarm boxes are in the rear of the switchboards, to be broken when occasion demands.

On account of the corner location on so large a lot (building 44 x 79 feet and lot 74 x 178 feet) no special ventilation system is required. However, air shafts lead to the roof from the wash rooms as well as from the battery room and from the special incinerator in the kitchen.

Latest Type Equipment

A standard No. 1 switchboard is a part of the outfit. Its present equipment is 6 sections or 18 positions, with an ultimate of 25 sections and 75 positions of the "A" type. The "B" switchboard will be equipped with 4 sections or 8 positions, with ultimates of 11 sections—22 positions. There are 2800 subscribers' lines and 300 outgoing trunks with ultimates of 8800 subscribers' lines and 720 trunks. A present equipment of 3070 subscribers' answering jacks is installed.

Four-party machine ringing is included and wiring is done, but equipment is not as yet installed for prepayment service operating.

In many particulars the building is outfitted similarly to the Dickinson central office building, with the exception that the former is a multiple switchboard while Dickinson is entirely nonmultiple.

The special heavy grade of fire-proof switchboard covers, which have replaced the former grade of tarpaulin elsewhere, is used in the Wyoming building.

Standard rolling ladders are provided in the terminal room, except on the cable side of the main distributing frame, where a mezzanine platform has been built. This permits the troublemen to get at the upper part of the frame with greater ease.

Adjacent to the testing table there is a clerk's section position so located as to enable a single employee at certain periods of the day to handle the cable clerk's work while attending to the other testing table duties.

As in certain other offices, a call-bell is installed in the lunch room and one in the rest room for the use of the chief operator in summoning the operators. A fire-alarm bell is also on the third floor to warn those in the rest, retiring. lunch, locker or hospital rooms.

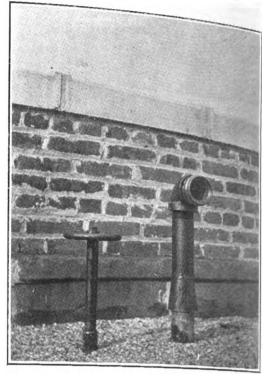
Other Modern Apparatus

The usual emergency gas engine for generating electricity is in the basement, a 50-feet sectional metal flagpole is on the roof, larger than usual rest rooms and hospital room are on the third floor, and a hot-water stove may be found in the engine room to serve during warm weather. There are also a special hoist for disposing of ashes, a businesslike frame for keeping the house screens in good shape during the winter, a double door installation in the high-power compartment, steps and floors in the hallways of new composition similar to concrete and pebbles, adjustable built-in bookcases in the rest room, and a sterilizing plant for drinking- and cooking-water.

Another story may be added to the building, with much less than the ordinary cost, as soon as the needs warrant it.

Cable Entrance

All of these improvements over buildings of a few years ago are perhaps of less importance than that of the magnificent cable vault constructed along the south side of the building under the sidewalk. A self-closing sliding firedoor separates this most important room from the rest of the building. A very few years ago, when other central office buildings were constructed in Philadelphia, the cable entrances were thought to be as nearly perfect and flexible as study and engineering foresight could make them. This was soon proved not to be the case, and the Wyoming construction is therefore noticeably different.



HOSE CONNECTION ON WYOMING BUILDING ROOF

Running from east to west, along the south side of the building, is the cable vault, measuring approximately six feet wide by sixty-seven feet long. At the extreme east corner of the south side of the building wall is the cable entrance proper. This looks not unlike cemented pigeonholes, by the side of each of which is a designating number. As each of these is required in turn, the cement is removed and the cable is brought through.

Vault Details

Right here is the radical change from the method formerly employed in leading cables from this point to the terminal room. A cable frame consisting of vertical iron supports has been constructed about eight inches from two of the four walls of the vault. At close intervals on these vertical supports, slotted racks are arranged in which hooks rest to carry the cables. The hooks may be raised or lowered as desired. thus enabling a single cable to be run in the closest possible space.

From the vertical supports on one side of the vault to those on the other side, horizontal supports are provided about three feet from the

ceiling to carry the splices.

The duct entrances and the positions where the cables are intended to be supported by the hooks are correspondingly numbered, so that, without confusion or possibility of error, they may be brought in, spliced and led up through the ceiling into the terminal room. In the vault ceiling what are known as ferrules are placed, through which the cables are led to the room above. These are pipes approximately fourteen inches long by three inches in diameter. Some of these. intended for immediate use, extend a few inches above the upper floor and a corresponding depth below the cable-vault ceiling. Others for use at some later time are pushed down, thus permitting the floor above to be furnished with the concrete preparation until the ferrules are required for later cables.

Desirable Features

Among the advantages of the new type vault are economy, flexibility and appearance. It is much less expensive than the cable entrances used

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in our Lombard, Belmont, Woodland and Dickinson central offices when those buildings were constructed a few years ago. Still more important is its flexibility over any type heretofore used in our territory. Its design is taken from that employed in the new Murray Hill central office in New York City. The slotted racks and the eight-inch space between the vertical supports and the wall furnish room for cables of later installation to be carried behind those previously placed and to be led through any ferrules to the terminal room without difficulty or cumbersome appearance. Then, also, the horizontal supports on which the splices rest provide convenient accessibility without detracting from the general ship-shape appearance of the whole vault.

All in all those who had to do with the planning and execution of the details of the new Wyoming central office are to be congratulated on the general result. It is thought that not even a minor point has been overlooked in providing an equipment that will make for economy of operation, convenience for employees and results for those who use our service.

Collection Efficiency Per Cent. of Amount Outstanding to Total Amount **Billed for Current Month**

AUGUST, 1913.

Collection Office

PHILADELPHIA DIVISION

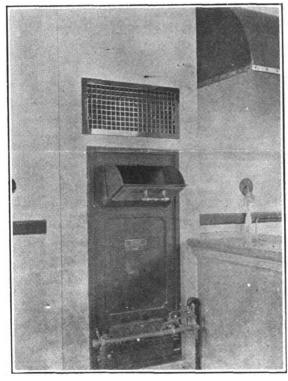
Per Cent.

| Confection Office | | | | |
|---|--|--|--|--|
| Germantown28.3 | | | | |
| Philadelphia28.4 | | | | |
| Chester | | | | |
| | | | | |
| HARRISBURG DIVISION | | | | |
| Lancaster 8.4 | | | | |
| Altoona11.6 | | | | |
| Ridgway13.1 | | | | |
| Carlisle14.0 | | | | |
| Pothlohom 14 9 | | | | |
| Bethlehem | | | | |
| Sunbury | | | | |
| Wellsboro | | | | |
| Huntingdon16.2 | | | | |
| Towanda16.9 | | | | |
| Honesdale | | | | |
| Nanticoke | | | | |
| Williamsport | | | | |
| York18.8 | | | | |
| Chambersburg18.9 | | | | |
| Berwick | | | | |
| Allentown | | | | |
| Carbondale22.0 | | | | |
| Scranton | | | | |
| Scranton | | | | |
| Bloomsburg | | | | |
| Waynesboro .22.9 Easton .23.6 | | | | |
| Easton | | | | |
| Hazleton23.7 | | | | |
| Pittston24.7 | | | | |
| Clearfield25.0 | | | | |
| Coudersport | | | | |
| Lewistown | | | | |
| Wilkes-Barre | | | | |
| Reading25.7 | | | | |
| Lebanon | | | | |
| Emporium | | | | |
| Leaf II- | | | | |
| Lock Haven | | | | |
| Bellefonte | | | | |
| Harrisburg | | | | |
| Shamokin | | | | |
| Pottsville | | | | |
| Division Cashier | | | | |
| | | | | |
| Atlantic Coast Division | | | | |
| Atlantic11.9 | | | | |
| D1 120 | | | | |

| Collection Office Norristown Bridgeton | 21.3 |
|--|------|
| Dover Trenton | 27.0 |
| West Chester | 28.0 |
| Camden | 31.4 |

PITTSBURGH DIVISION Carrollton13.3

| Morgantown18.3 |
|--------------------|
| Scottdale18.5 |
| Latrobe |
| Warren20.1 |
| Clarksburg20.2 |
| Uhrichsville |
| Warren20.9 |
| Fairmont21.1 |
| Greensburg |
| New Kensington21.5 |
| Salem21.5 |
| Ebensburg22.0 |
| East Liverpool22.4 |
| Marietta 22.4 |



INCINERATOR IN KITCHEN OF WYOMING BUILDING

| Cambridge23.2 |
|------------------|
| Oil City23.2 |
| Wheeling24.1 |
| Indiana24.4 |
| Rochester24.5 |
| Butler25.0 |
| Sistersville |
| Punxsutawney25.6 |
| Uniontown |
| Franklin25.9 |
| Youngsville27.0 |
| Sharon |
| Greenville |
| New Castle |
| New Castle |
| McKeesport |
| Connellsville |
| Bradford29.0 |
| Corry29.5 |
| Pittsburgh30.2 |
| Steubenville30.5 |
| Dubois |
| Charleroi |
| Washington34.5 |

| Bedford Parkesburg | .36.5 |
|--------------------|--------|
| Grafton | .37.2 |
| North East | 42.3 |
| North East | 138 |
| Erie | .40.0 |
| Johnstown | .51.1 |
| Meadville | . 51.3 |

Meat Selling by Telephone

How a large meat-packing company (Armour) utilizes telephone service in its branch houses is ably described by J. A. Hogan in the September 11 issue of Printers' Ink. He shows that while the use of telephone service may never do away with personal business calls, there are instances in which successful interviews may be had in no other way. Smoked meats, and other items of which the quality is standardized and well known to the trade, are very items on which a salesman has the most competitors and on which orders are easiest to secure by telephone.

Some Ideas on Water

"Water for some purposes is all right," says the Atlantic Plant Supervisor, W. Zerman, "but it doesn't help the Plant Department." Consequently he did not object when the following appeared in an Atlantic City newspaper, but passed it along for our paper.

"Water is one of the worst enemies of good telephone service. On each rainy day some lines are found to be noisy because of the electric current following the water rather than the wire.

"Even within-doors trouble from water sometimes occurs, and good housekeeping is usually to blame for it. Indoor telephone wires are run along the baseboard of the room, along the picture molding of the door and window casings. Ordinarily these wires are safe from moisture. But at regular intervals the thorough housewife scrubs the woodwork. If too much water is applied to the wiring the telephone lines become useless, at least till the wire dries out. Occasionally some energetic housewife scrubs the tele-phone set itself. The water or cleaning fluid almost invariably gets inside and damages the wiring of the instrument.

"The telephone cords are particularly liable to injury by dampness. A cord resting on the floor may easily become saturated with scrub-water. Even as it lies on the desk or the table, the cord may be soaked through by the upsetting of a glass or a bottle of ink.

"The babies in the household are frequently fascinated by the bright telephone set and the green cords. Sometimes the mischievous toddlers pull the instrument off the table, a danger which anxious mothers are careful to guard against. But babies have another telephone habit not quite so dangerous to themselves, but equally injurious to the telephone,—they love to put the telephone cords in their mouths, and cord that has been thoroughly chewed up is as useless for service as if it had been left out in the rain.

"The telephone wire chiefs at the exchange have occasionally been able to surprise mothers complaining of telephone trouble by making an accurate guess offhand as to the baby's or the house-cleaner's activities.

Telephone cords are not poisonous, and baby will take no harm from chewing them, but if he gets colicky in the night from some other perfectly natural cause, and a wet telephone cord causes delay in summoning the doctor, the results are likely to be quite serious.

"In fact, it will pay every telephone user to see that all electric wiring is kept dry."





Oct. 1

Western Electric Company Organization

By G. G. Young, Buyer, Philadelphia

RGANIZATION produces efficiency."
This is forcefully true with the supply department of the great A. T. & T. affiliation. For the first time we are publishing a correct line organization chart for the enlightenment of our readers. In connection with the local committee and line staff (those with whom many are familiar) we have given the connecting links which show their superiors.

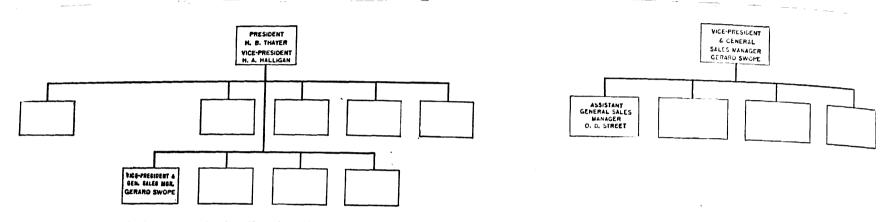
The photograph published in our last issue shows a complete group of Western Electric

Company cooperators, and with our succeeding issues we will familiarize the readers with specialized photographs. Our next issue will contain a picture of the local committee, showing who's who locally.

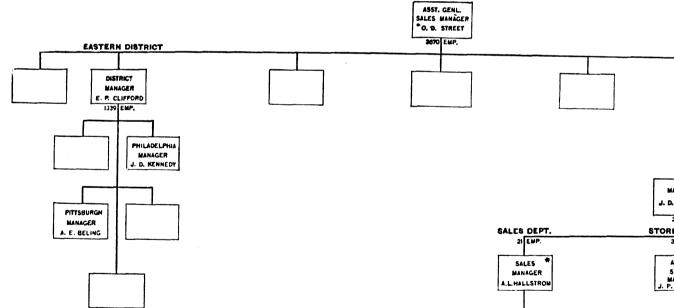
Our readers may readily define the plan of action of this chart whereby the great Western Electric Company's supply business has become second to none in the entire world. Wall Street statistics published recently state that the combined 1913 business of the Western Electric Company will exceed that of 1912 by a goodly margin. The total sales for 1912 were approximately \$76,000,000. Of this amount the Philadelphia branch contributed quite proportionately in sales, of which the bulk was distributed to the

Bell Telephone Company and its Associated

An analysis of the local chart will show two distinct groups or classes, namely, Telephone and distinct groups or classes, namely, Telephone and direct supervision of Mr. J. D. Kennedy, Manager; the telephone department reporting to Mr. J. P. McQuaide, Acting Stores Manager and the supply department reporting to Mr. A. L. Hall telephone department handles only orders and requisitions received from the several telephone companies, while the supply department act in a distinct jobbing electrical capacity, solicing business from outside customers and also independent telephone customers.



ORGANIZATION CHARTS SHOWING RELATION OF THE PHILADELPHIA HOUSE TO ENTIRE WESTERN ELECTRIC COMPANY

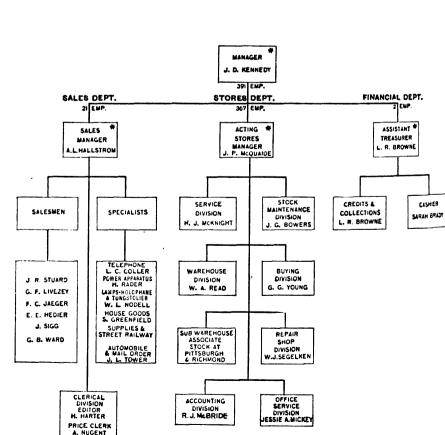


Convention of Telephone Pioneers

The third annual convention of the Telephone Pioneers of America will be held in the Congress Hotel at Chicago on October 16.

The business meeting will be held at 10 A.M. In the afternoon addresses will be made by Messrs. Thomas A. Watson, N. C. Kingsbury, Thomas B. Doolittle and Michael J. Carney. In the evening there will be theatrical entertainment by telephone talent.

It is hoped that all Pioneers who possibly can will attend this meeting, as the main purpose of the association is the banding together and keeping on record of the various "old-timers." Any employee of good standing is eligible to membership who prior to twenty-one years of the date of application has been engaged in the telephone business or its promotion, and has been at any time thereafter continuously in that service for five years.

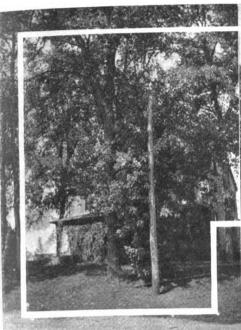


*MEMBER OF LOCAL COMMITTEE
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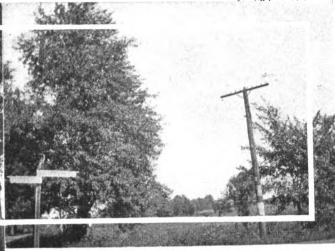
RECORDS W. BECKET

5





THIS POLE AT BRIDGEWATER, PA., WAS REPLACED THE DAY AFTER IT FELL. IT CARRIED ONLY TWO WIRES



PRACTICALLY ALL WIRES ON THIS BRIDGEWATER, PA.,
POLE WERE DESTROYED BY WIND STORM WHICH
ACCOMPANIED THE ELECTRIC DISTURBANCE

Another Electric Storm

(Continued from Page 1)

1079. As usual, the restoration forces grew until 102 were engaged.

Bustleton, Chestnut Hill and Germantown showed 74, 142 and 151 substation troubles respectively on the first report.

Not to be outdone, the Plant Eastern report demanded action to the tune of 1164 lines, 3408 stations and 162 trunks. Bridgeton led with 213 lines, 872 stations and 35 trunks, followed by Camden with 165 trunks, 444 stations and 29 trunks.

In Philadelphia one day was sufficient to bring these cases to normal, while in the Eastern Division it required approximately two days. Electric storms are nearly always more or less freakish in damage done. In this storm there were proportionately more trunks in trouble, when all particulars were considered, than in the disastrous storm of August 10.



ABOVE: FALLING POLE AT FLUSHING, PA., AND AT THE RIGHT THE FALLEN TREE WHICH TOOK IT DOWN

A Movable "Ground"

A movable "ground" was discovered on a line between Memphis, Tenn., and New Orleans, La., by a Western Union wire chief. We'll not vouch for the statement, but when it moved forty and one-half miles in a single day, his assistant started on foot from the direction toward which it was headed. A ground-hog was reported as the "Weston" causing this trouble.

An Injury Through Haste

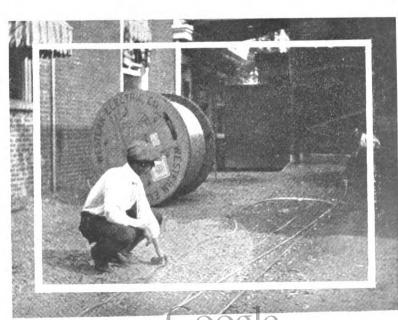
A lineman was working on a pole about twenty feet above the ground, straightening cross-arms. He had his safety belt around the pole. While he was working the snaps on the belt slipped off the rings so that the man fell backward and struck his back across a push-brace which had just been removed from the pole. He suffered contusion of the back, sprained his wrist, and lost three weeks' work.

The accident could have been avoided if the man had inspected the snaps on his safety belt before he rested his weight on it.



LEFT:
TWO SNAPSHOTS
OF MAINTENANCE MEN AT
EAST WASHINGTON LANE,
GERMANTOWN

RIGHT: MEASURING 10-PAIR CABLE FOR A CHESTNUT HILL REPAIR JOB



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Oct. 1

Sightseeing Around the Great Lakes

By Miss Anna Belford, Chief Operator, Allentown

A LTHOUGH my vacation trip proved to be a charming one, it is rather difficult to give an adequate idea of one's impression of that section of the United States along the Great Lakes and the interesting portions of Canada that our trip included.

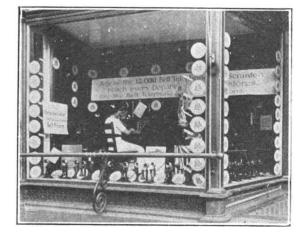
Our party, made up of seven young women and the conductor, boarded the steamer "Octorora" at Buffalo for the sail over the Great Lakes. Everybody who has made a trip of this kind is fully aware that it is a lazy life,—nothing to do during the daytime, when out of sight of land, but to read, watch for boats, or take a sound nap in your steamer chair awaiting the sound of the bugle announcing the "first call for dinner."

Short stops were made at Erie, Cleveland and Detroit, a few hours being allowed for sight-seeing in these thriving cities. Passing through the St. Clair Flats proved to be one of the revelations of the trip. Standing upon the deck of our large steamer, it was an easy matter to throw a stone upon either shore because of the narrow channel through which our boat sailed. Upon one side numerous bungalows together with large hotels met our view, while upon the other a perfectly flat stretch of land gave an entirely different aspect to the scene. What struck me most forcibly was the large array of merchant vessels which passed in both directions. In fact, it told us that a steamer comes along every seven minutes, not to mention the many motor boats and minor craft.

Upon arriving at Mackinac Island harbor, the chief object of interest was the old fort which adjoins the block house, from which slopes a beautifully laid out park extending to the water's edge. There is a peculiar charm because of the silence which pervades the beautiful wooded paths of this historical island. Other interesting points to which the party was taken included the British Landing, Arch Rock, Lover's Leap and other places.

Leaving Mackinac Island on the "Germanic" in a violent thunderstorm, our party was pretty well shaken up by the roughness of the water. This part of the stormy trip took us across Lake Huron to Georgian Bay, thence to Owen Sound. Consequently next morning only two appeared for breakfast. Night, however, brought a change for the better, the "derelicts" showing up in fine style for dinner.

Owen Sound was reached about 10:30 o'clock the following morning, where a few hours were



DEPARTMENT STORE WINDOW DISPLAY OF CLARK BROTHERS, WEST SCRANTON, PA.

spent with a luncheon and sightseeing. We left by rail for Toronto, arriving at the King Edward in the evening and leaving this beautiful Canadian city next day for the Muskoka Lakes. With only a length of thirty miles, these lakes are studded with 30,000 islands, the great majority of them having the regulation bungalow. Passing through innumerable channels, there is an abundance of material for the tourist to gaze at in wonderment.

Port Carling held our attention with its facilities for large steamers. At the Royal Muskoka Hotel our party was greeted with the strains of the "Trail of the Lonesome Pine," which was most apropos after a walk through a grove of pine trees.

After almost a week of all-day steamer rides around Lake Joseph and delightful walks through the pines, our stay at this charming spot ended with a dance. Toronto was again included in our itinerary, where the exposition proved to be the great attraction. Here I asked a "bobbie" the location of the telephone exhibit. In utter astonishment he answered, with his chin high in the air, "There haint any!"

After a sightseeing trip through Toronto, our party went to Buffalo, where we separated after a most delightful two weeks' vacation with very congenial companions.



Scranton District

A profitable exhibition has been in one of the large show windows of Clarke Brothers' department store in West Scranton. A switchboard equipped with one trunk and six stations placed throughout the store was the means of demonstrating the use of the telephone to the public and a large number of people took advantage of our demonstration and used the service.

Clarke Brothers, who have all their departments connected with our branch exchange service, were greatly pleased with the demonstration and the crowds that were attracted at their show window.

Our demonstrating salesman gave out a large number of Blue Bell fans and appropriate advertising matter. He was also instrumental in signing eight stations with a total revenue of \$210 and obtained nearly 50 good prospects. Miss Kintner of the Scranton Traffic Department operated the switchboard,

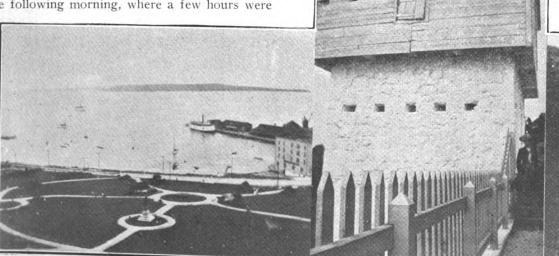
The idea of combining sales work with our demonstrations was originated at the Scranton District office.

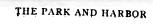
Williamsport District

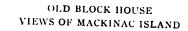
An excited sportsman, while landing his "catch," threw his line over the telephone wire running between Wellsboro and Tioga. In his efforts to remedy matters he wound the fish and line around the wire, thus causing a case of line trouble that was difficult to locate.

A Wellsboro physician came into the Commercial office recently to pay his telephone bill. He was in a very good humor, as during the night he had received a call, and while preparing to leave, the telephone rang again and he was advised that the patient was better and it would not be necessary for him to go. He remarked that while he lost his fee he was able to have needed rest, and at the same time his patient was saved the unnecessary expense of a night visit.

A bond salesman called a short time ago at our Williamsport Commercial office about 9:30 A.M. and placed thirty-eight calls for different banks within a radius of 100 miles of Williamsport. At 12:15 thirty-seven calls had been completed: the thirty-eighth party called for was out of the city. He informed us when through that he had sold \$36,000 worth of equipment notes, and that the service was very satisfactory.









ad Streenth of each month in the inter The Bell Telephone Company of Pennsylvania The Central District Telepho The Delaware & Atlantic Telegraph & Telephone Co. The Diamond State Telephone Cor

F. H. BETHELL, President
H. F. THURBER, Vice-President
L. H. KINNARD, Second Vice-President and General Manager
W. S. PEIRSOL, Sec'y and Treas,
J. H. CROSMAN, Jr., Gen'l Com'l Sup't J. L. SWAYZE, General Auditor
J. H. CROSMAN, Jr., Gen'l Com'l Sup't J. L. SWAYZE, General Autorness
J. C. I.YNCH, Gen'l Sup't of Traffic
J. H. HONS, Auditor
S. H. MOORE, Counsel

ng Editor, E. H. HAVENS, 17th and Filbert Streets, Pl SUBSCRIPTION PRICE:

yees of the above Companies
yees of OTHER BELL COMPANIES,
payable in advance

NO CHARGE

Vol. IX

OCTOBER 1, 1913

No. 19

That "Impossible" Word

N September tenth, one hundred years ago, a young, slightly built naval officer, whose countenance still bore the flush of victory and whose eves shone with an exultant light, scrawled a short dispatch and handed it to a courier standing beside him on the battle-swept quarter-deck.

In a thrice the man was over the side bearing that message which in course of time was to electrify the entire country. Its words are still ringing in the ears of the young captain's countrymen-"We have met the enemy and they are ours."

The man who wrote those words was Oliver Hazard Perry. That was his modest way of reporting that he had accomplished the "impossible."

We all know the story back of the message: Perry ordered to construct a fleet of ships to destroy the well equipped British squadron in the lakes; Perry at Presque Isle (now our own Erie) rushing the construction of nine boats built of roughhewn timbers; Perry sailing courageously forth with his tiny fleet to meet the better equipped, strongly built British ships; Perry fighting on with his vessels sinking, and-undaunted even when his own shotriddled bark settled beneath the wavestaking possession of one of the enemy's ships; Perry sending that modest yet thrilling message, "The enemy are ours."

It was not Captain Perry's skill alone, nor the American sailormen's pluck and gunnery, which won the day a hundred years ago.

Rather was it that young Perry's spirit of optimism, his determination and belief in himself, which brought about the glorious victory. When he was ordered to destroy the British fleet and was given not a gun, not a keg of powder, not a single ship with which to do it, did he hesitate? Did he say, "It can't be done,—it is impossible"? With indomitable spirit and an I-will determination he set about the

task of constructing the ships, casting the cannon and securing ammunition,—nor did he falter in the attack when the stronger British fleet opposed him.

It is not only on the battlefield that we find examples of men who, like Perry, never see things as impossible, because they are too busy planning how to overcome them. Every new invention, every great commercial victory proves that some man has been dissolving that monstrous mountainous word "impossible" in the solvents—always at hand—of skill, common sense and stick-at-it-iveness.

Inapt Remarks

66 OUR repairman recently said that the instrument was defective and he would replace it with a new one," wrote a subscriber not long ago. "It has become worse and worse and I should be obliged if you would install the new instrument as quickly as possible."

Prompt investigation showed a brassy condition of the desk stand to be the "defect" of which the subscriber complained. But the Supervisor went further. The "repairman" in question was quizzed; and, sure enough, he did recall having mentioned to the subscriber the brassy condition of the stand, and in such a way as to leave the impression that the quality of the service was largely dependent on that condition.

To make a long story short, a new desk stand was substituted at once, and since then the subscriber has had no "trouble" with the service. But there is something more to be said.

It is an axiom that our duty is not only to receive complaints cheerfully and to remedy defects promptly, but to take such steps as will make their recurrence practically impossible.

To this end one of the Maintenance Division blanks (Form 1718), consisting of a report on a written complaint, asks not only for the record of trouble found after investigating that particular complaint, but also for the record three months previous to the receipt of the last one. After the questions, "Is telephone working satisfactorily to the subscriber?" and "Exact cause of trouble?" comes the pertinent question, "Could complaint have been avoided?

In the case above cited it was a reply of "Yes" to the last question, which developed the fact that a former inspector had left an incorrect impression with the subscriber.

Such inapt statements—so easy to make but not always so easy to rectify—are the cause of much of the trouble that has to

be met later. There is a routine method of handling such cases. It would be better, then, to make our own observations, to jot them down so that tricky memories may not defeat us, and to report conditions to our superiors for definite action.

Your Personal Inventory

ID you ever "take stock" of yourself! You have a pretty fair idea what sort of a fellow you are and how much you're worth to yourself, your company and the business world in general,—but did you ever get down to brass tacks and take a true measure of the man you think you are? If not, you have an interesting half hour before you, and maybe a surprise or two if the inventory is conscientiously made.

Take pencil and paper and draw two columns, heading one "assets" and the other "liabilities," for want of better terms. Then forget all your pride, all your egotism-"swell-head" most people call it—and jot down in these columns your strong points and your weak ones.

First, your health; is it good or bad? Then, ambition; are you really ambitious or simply covetous of success? How about your intelligence; have you brains or just a brain, and are you mentally alert or mentally lazy? So on and so on-your faculties, your manners, your habits, and all the other attributes that go to make up your real measure.

And suppose, just for example, you find that your "asset" column includes good health, ambition, brains, good manners, and ten or a dozen other requisites of the real man. Good, you say; and maybe you're prompted to let it go at that, content that you have an advantage over the great majority of your fellows. But hold on! What does the other column show? Just suppose you are afflicted with occasional mental laziness; have you had gumption enough to say so? Have you frankly put yourself down as a "grouch" if, when things don't go to suit you, the title fits? It's just possible that you don't talk well or write well. Perhaps you are overburdened with pride or you're thinskinned; perhaps diffident and perhaps a bit of a know-it-all. Then what?

Now this isn't a preachment; it's only a suggestion that you make a very simple and thoroughly interesting experiment. If the results show satisfactory, well and good. If they are not to your entire liking, you've something handy "to work on" in your everyday building-up process.

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Cruising in a Thirty-Feet Cat-Boat

By J. D. Elmer, Plant Department, Bridgeton, N. J.

Early on the morning of July 13, a party of five fellows set sail from Bridgeton, N. J., in a thirty-feet cat-boat, with a nine horsepower, two-cylinder auxiliary engine, bound for Nantucket Island, Mass.

First the various duties were assigned, and captain, engineer and cook were selected in regular order. A singing master was chosen captain and the writer became cook.

When dish-washing time arrived there was doubt as to who was most fitted for this important duty. After some discussion—all of it goodnatured—a heavy shower came up. The dishes were put on deck and the rain did the rest. Rains aren't always so obliging as to serve cruisers after every meal, and when the next time for dish-washing came the dishes were discovered to be in a bag, being dragged in the water at the stern.

By this time we were fairly on our course, which lay from the Delaware Bay, up the river to the Delaware and Raritan Canal, through that to Raritan River, to East River, and through Greater New York to Long Island Sound. This distance was "made" in three days, a day and a half having been spent in the canal.

It was very interesting and exciting, going up the East River in our little craft, among ferries, tugs, warships, scows, schooners, and in fact every kind of boat imaginable, dodging here and there while we "chugged" along at eight miles an hour with our little two-cylinder.

After reaching Long Island Sound, our course lay along the mainland, stops being made overnight at New Haven and New London, Conn., and Newport, R. I. From there we headed toward the sea, for Block Island, about 40 miles off mainland, an island about five miles in diameter, and a great fishing place from which tons of sword-fish, lobsters, etc., are shipped daily. On the following day we sailed for Martha's Vineyard, an island a little larger and farther up the coast. We were compelled to stay here a day on account of a southwesterly storm. Upon landing at each of these islands it was pleasant to see the Blue Bell signs offering both local and long-distance service.

The next day, however, the weather cleared and we reached Nantucket Island, about 35 miles farther toward sea and out of sight of land. Here we discovered that our vacation was half over, a fact which compelled us to start on our return voyage the following day.

On this trip we had a fine view of fifteen United States torpedo-boats and ten warships in maneuvers off Rhode Island, some of them passing within 200 yards of us.

We returned by way of the Long Island shore, stopping at Oyster Bay and Huntington Bay. We reached home on schedule time, having traveled over 900 miles.

FROM BRIDGETON, N. J., TO NANTUCKET, MASS.



UPPER LEFT: AT THE WHEEL LOWER LEFT: A GOOD BREEZE

UPPER RIGHT: THE BOAT
LOWER RIGHT: CONSULTING THE CHART

In Canada and Northern New York

By J. Henkle, Traffic Inspector, Trenton, N. J.

O escape the Trenton heat during my vacation I was advised to go to Canada, and on August 3rd I took the night train on the New York Central to Montreal. With no definite plans, I stayed in one place until its interest lessened and then went to another.

While I found Montreal cooler than certain United States cities, it was not ideal. It is, however, a beautiful city and is built on level ground between Mt. Royal and the St. Lawrence River. The Bell Telephone Company of Canada has seven central offices to handle the telephone business of Montreal.

After only one day in Montreal, I again took a night train—this time for Quebec, 178 miles away. This is a seven-hour trip.

Quebec is entirely different from Montreal. The narrow streets ascend hills so steep that the sidewalks are often a series of steps. Some sidewalks are hardly wide enough to permit two people to walk abreast. The houses appear to have been transported bodily from some old French city.

Some parts of Quebec are picturesque and others are magnificent. The Chateau Fronteau is built on a bluff 200 feet high and rising straight from the river. This hotel is one of which any city would be proud. In front of the Chateau, and extending for about half a mile, is a walk that has been rightly called the finest promenade in the world.

At the end of the promenade, flights of steps lead up to the Citadel. The Citadel is 393 feet above the river and cost \$35,000,000 to build. Since 1820 the government has spent over \$54,000,000 on alterations and maintenance. It is built on solid rock, and a series of massive walls about 25 feet high and of the same thickness help to make it impregnable. Called the Gibraltar of America, the fortress is really obsolete and is used as a training camp. The modern guardians of the city are some miles east, where an enemy could be checked before reaching Quebec. An English soldier showed me through the Citadel.

The Plains of Abraham lie in front of the fortifications. Here the French and English fought the battle that decided the fate of Canada. The British barracks occupy a portion of the Plains and the remainder has been made a public golf course. The old French earthworks still remain and help make the course one of the best in Canada.

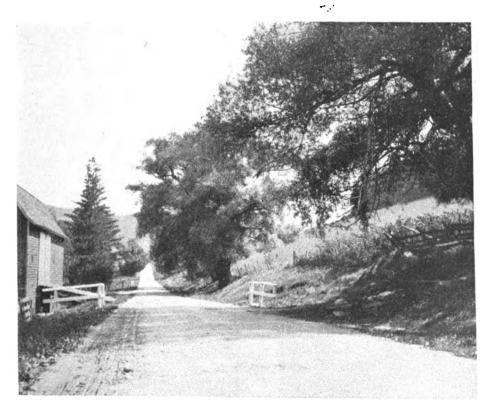
The Bell Telephone System at Quebec is also of the most modern type. The wires are all underground. To make room for the conduits every inch of the way had to be blasted through solid rock.

The central office is a well-lighted room 62 by 90 feet and is equipped with the newest kind of toll and local board. Over 6000 lines and 8000 stations are working in Quebec.

Mr. Flynn, the District Traffic Chief, has improved the service until it is said a written complaint is unknown and a verbal complaint is received only at rare intervals. This has been accomplished despite the fact that the local operating has to be done in both French and English. The rest room has a clothes dryer that does great service on wet days.

The return trip from Quebec was broken by stop-offs at Plattsburg, Ausable Chasm and Albany and by a boat trip on Lake Champlain.

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IDEAL ROADS
MADE A
TRIP
WITHOUT A
SINGLE STOP
FOR TIRE
REPAIRS

except that it possesses the added attraction of glorious wild and irregular scenery as a set-off to the magnificent villas.

It was when coming into Stockbridge, I think, that the following sign drew our attention:

TOWN OF STOCKBRIDGE.

Automobiles are requested to run as quietly as possible through the town. Do not use muffler cut-out. Speed limit, 12 miles per hour.

After passing through there was another sign, simply with these two words:

"Thank you!"

It surely was an agreeable change and not the usual wording of signs of this character.

The Walker estate, outside of Great Barrington, is worthy of mention as it contains magnificent Italian gardens. The estate is open to the public during the day and it is well worth a visit. The gardens themselves are situated on a rising slope. On all four sides is a covered walk, the roof of which is supported by columns of pink Carrara marble marvelously carved. The

An Automobile Tour Through the Berkshires

By William O. Pipping, Correspondence Clerk, Business Office, Philadelphia

Toccurred to me that the following description of a most delightful little tour through the New England country would prove interesting to the readers of The Telephone News. Although I had frequently heard what a glorious country there was in this section, it went far ahead of expectations.

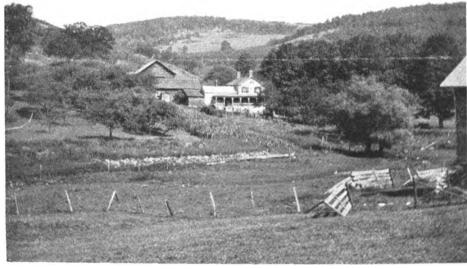
A party of four of us left Philadelphia one morning early in September. Our first day's trip took us across Pennsylvania to Port Jervis by way of Easton, Wind Gap and Stroudsburg. Bushkill Falls along the road from Stroudsburg is worthy of note. It is an exceedingly pretty spot, the water falling gracefully into a deep ravine about one hundred feet below. The only disadvantage is that you are taxed twenty cents

to admire the scenery!

Port Jervis, on the New York state line, was reached about sunset. The town contains little of interest to the traveler. The only hotel in the place is situated very conveniently right in front of the railroad station—the terminus for three or four railroads. With trains thundering in and out all night long, whistles blowing, bells ringing, etc., the guest gets all the sensations of a sleeping car without its crowded experiences. Next morning, bright and early, our journey continued in the direction of Lake Minnewaska. The roads are surely maintained in excellent condition in this part of the country. Some idea of the roads over which we traveled may be formed by the fact that 632 miles were covered on this trip and not once did we stop to repair a tire.

Lake Minnewaska is like a gem set in the mountains, 1800 feet above sea level. It is an exceedingly stiff uphill climb for five miles from the main road. All automobiles are compelled to stop a mile from the lake, the rest of the way is so dangerous. But it is well worth the climb when you get there. The outlook is magnificent, taking in the whole Catskill range, with the Berkshires and Hudson Valley in the distance. After an overnight stop, we headed for

THERE
WERE
PICTURE
ESQUE
WELL KEPT
FARMS
WITH
FRUIT
TREES ALL
ALONG
THE WAY



Kingston by way of Ashokan, where the great dam is being constructed to supply New York City with water. The dam itself is about eighteen miles long.

After stopping in Kingston for a short time, we proceeded to Catskill, and reached there late in the afternoon.

The following morning, after crossing the Hudson by ferry, we proceeded to Hudson, New York. After running through on the main street we were soon out on the country roads again, bound for the Berkshires.

The country was gradually becoming more mountainous and the road, while good, was winding and very hilly. We soon after crossed the state line into Massachusetts.

The next forty or fifty miles brought a constantly changing landscape, rolling country and very wooded, dotted with picturesque little farms, with a lake here and there.

As we kept on we found the farms giving way to wonderful estates and beautiful country homes.

South Egremont, Great Barrington, Stock-bridge and Lenox are all fine old-fashioned towns, with wide streets shaded on both sides by large elms and maples.

In some particulars this country is not unlike the Main Line district outside of Philadelphia,

floor and the walls are also of the same material. In the center of the garden there is a beautiful fountain of pure white marble, surrounded on all sides by shrubs and flowers of every description. This is truly an ideal spot.

Lenox and Stockbridge are both exceedingly pretty little towns to visit, containing many fine residences, bordering on roads which are better termed boulevards.

Lenox was our turning point and it was not very long before we arrived at Poughkeepsie and a little later at Newburgh..

On our return trip we passed through Tuxedo Park and Pompton, N. J. At Lake Hopatcong

Park and Pompton, N. J. At Lake Hopatcong we spent some time in sightseeing.

After going through Morrisville, Princeton and

After going through Morrisville, Princeton and Trenton the country became more familiar, and it was a welcome sight when the Quaker City came in view from the Camden side of the Delaware.

The Chicago (Bell) telephone directory has been changed from a three- to a four-column plan, reducing the total number of pages from 1400 to 1200. The combination of the alphabetical and classified business sections of listings under one cover makes this the largest telephone directory now in use.



In August the Plant Eastern Division sent 64 suggestion slips—nearly twice the number (34) sent by the Traffic. Over \$1200 new revenue was gained from the Plant assistance and over \$400 from the Traffic. The business obtained varied from a single extension bell to a private branch exchange.

The highest amounts of additional revenue resulted from suggestions furnished by the following men: J. V. Donohue, Jenkintown, \$162; F. A. Harvey, Norristown, \$65; H. W. Hill, Wilmington, \$60; A. Jackson, Wilmington, \$60; H. E. Love, Atlantic City, \$50, and O. Forman. E. Love, Atlantic City, \$58; and O. Farrow, Dover, \$49.

Bridgeton Sub-District

The horsethief, always busy somewhere, resumed operations at Glassboro, September 11, according to the local papers. A young man hired a team from James C. Nutt, who conducts a livery stable there, and said that he wanted to drive around the town. That was early in the When he failed to return that afternoon, the owner used the Bell to the police of near-by towns. The information was relayed, and when a stranger, driving a tired horse, stopped at a police station at Drexel Hill, Pa., inquiring the way to Reading, he was arrested. The rig was returned to the owner only twenty-four hours after he hired it.

The window display reproduced on this page was mentioned in the local happenings column of a newspaper. It appeared in the Red Cross Pharmacy of Vineland and was the first of its kind in that town. LORE.

Dover Sub-District

Dover, Del., has just purchased an automobile fire engine for use in the town and suburbs. On account of the few fires that occur no attendants are constantly on duty at the fire house, and in



FIRST DISPLAY OF ITS KIND IN VINELAND, N. J.

the past it was necessary to telephone the alarm to a house near the fire house. The general alarm was then struck by someone having a key to the When the members of the volunteer company heard the alarm they hurried to the fire house and hauled the apparatus by hand to the scene of the fire.

The new plan depends almost entirely on the telephone, for the reason that in the central office there are two switches. One operates six gongs in as many firemen's homes and the other operates an eighteen-inch striking gong placed in the



tower of the fire house. All the firemen are being taught to run the new macnine, and it is believed that within five minutes after an alarm has been sounded by the operators at central office the new engine will be on its way to the fire. Inasmuch as the town is about one mile square, another two or three minutes will be all that will be required to get in action.

Local Traffic During a Storm

By Miss Maud Bethel, Operator in Charge, Millville, N. J.

The storm in Bridgeton District September 7 was very severe and traffic jumped as it always does at such times. Three dwellings and a barn were burned at Norma and the people were very much alarmed. The stations there are operated from our Millville central office. When I arrived on duty at 10 A.M. Sunday, calls for the Millville Gas Company were coming in from many of the Norma stations. Their houses were equipped with gas, increasing the danger during electric storms. The gas men were soon started in an automobile and on motorcycles from Millville to Norma.

At Vineland, Miss Ethel Cheesman, the operator on duty, also notified those in charge of the large factories and stores of their danger and at the same time asked them to send aid to Norma to aid in fighting the fires already started. They went and formed bucket brigades.

One subscriber lifted his receiver and said, "Operator, you must help me; you're the only one I can ask." He then gave particulars and the near-by subscribers were summoned. Another subscriber, a woman, said, "Operator, get us a fire department engine right away; our pretty little town (Norma) is burning." Every subscriber there seemed to be at the telephone at the same time.

When the chance came I notified the Plant Department of the danger that the telephones were in. It was a busy time for a while. Operators are often having these experiences, but as this was our first during the 1913 electric storms, I thought I would submit it for our paper. Digitize hours, the truck carrying 240 baskets makes two

Jersey Cantaloupes by Telephone

AITERS as a class have an annoying desire to educate the consumers in such matters as pronunciation, articulation and the correct use of words. For instance, if you request prunes the waiter will probably linger in back of your chair and ask you if you want "stude pruins" And if you should order soup, sav mulligatawny, he will more than likely ask you if you mean "mulagitanny." Should von

Should vou try to get in the good graces of the waiter as you lay down the breakfast bill-of-fare, by using the voice with the smile injected and ask for another of those delicious Colorado Rocky Fords that you brought me yesterday," the waiter may simply raise his eyebrows and remark, "Sorry, but them New Jersey Rocky Fords is all!"—meaning all gone. In location, however, for some unaccountable reason the waiter is correct. Those cantaloupes that you have been enjoying during the past season, if they have been really luscious, were not from Colorado. A hig reason is because cantaloupes that are to be shipped long distances must be picked when they are hard and green, and as a result they never obtain a flavor equal to those allowed to mature on the vine. For melons cannot be picked so green as tomatoes or lemons and still ripen during shipment to good quality.

The best tasted cantaloupes in our Eastern markets are consequently those grown in Maryland, Delaware and New Jersey-with some of the best Rocky Fords coming from Gloucester County, N. J. This variety receives publicity on the bill-of-fare of the leading hotels and restaurants and has become justly famous for its sweet and melting flesh of a flavor that makes one forget that lip-smacking is a lost art. Probably no melon has ever come into the Philadelphia markets which has sold so readily and at such high prices as the Rocky Ford.

An Enormous Patch

It is interesting to know that what is claimed to to be the largest Rocky Ford patch in New Jersey is located near Glassboro, eighteen miles or fifteen stations south of Camden. This patch is part of the John Repp estate and occupies over twenty-seven acres. Last year the owners began the raising of cantaloupes on a large scale, and at the close of the season their books showed that they had sold twelve hundred baskets. Most important, however, was the fact that this was the first time that the Rocky Ford variety had ever been raised successfully in that section of New Jersey. Thus encouraged, the Repps went into the cultivation of cantaloupes on a much larger scale this year. They again secured a large quantity of seed direct from Colorado, and to this they attribute some of their success. However, when it is stated that their output this year jumped to over five thousand baskets, it is selfevident that good business coupled with scientific farming were the main factors in accomplishing these results.

Growing and Selling Aids

Throughout the entire estate the most modern farm implements and equipment are noticeable. An important example of this progressive spirit was shown when they replaced eighteen horse by one motor truck. This five-ton truck paid for itself in a little over a year, including all mainter nance and operation costs. Where a three-horse wagon carrying 120 baskets of fruit made one trip a day into Philadelphia, requiring twelte



11

trips, taking but four hours for the round trip. During busy seasons the truck has been known to make four trips a day, which means twenty tons hauled in a single day, the mileage for each round trip being 32 miles. As a sequel there are to-day two trucks on the farm, for besides cantaloupes there are 65,000 trees here, bearing high class apples, peaches and pears. With all their modern machinery and appliances, the owners consider the telephone as their greatest aid. In fact, Mr. Albert Repp frankly admits that without telephone service it would have been impossible for them to arrive at their present stage of success.

Besides the telephone station at the office there are two at the cold storage plant, one at the packing house, one at the warehouse, one at the house of each of the four foremen; in fact, altogether they make good use of fifteen stations. And on a farm spread over such a large extent of territory it would be difficult for the owners, or anybody else, to figure out, even approximately, the time, labor and expense saved by this telephone service every twenty-four hours.

But where service is spelled with 120-point type—and that's the kind the "yellow" journals use for their headlines—is in connection with the markets. For every twentieth century farmer realizes that with a perishable fruit like cantaloupes it is absolutely necessary to keep in close and constant touch with the markets. The Repps are therefore not alone in benefiting by the "Use the Bell" habit, for during the three-month season the Glassboro operators are kept exceedingly busy between 6 and 8 every morning. The cantaloupe growers, together with the other fruit raisers, use this time to talk with the various commission merchants in Philadelphia, as well as Atlantic City and other large seashore resorts. to ascertain the exact condition of the market. And not only the amount but also the direction of the shipments depends entirely upon the answers they receive.

Growers' Troubles

The cantaloupe growers' problems are not easily solved, for the melon is a warm-season crop, and unless the soil is warm and the weather favorable the seeds will not germinate nor the plants grow. Furthermore, no sooner has the seed germinated than the struggle for existence begins. It is not surprising that various insects and diseases have made their appearance in the melon-growing localities in New Jersey and that they annually cause considerable loss. The appearance of such pests seems to be inevitable when for several years a large acreage in a locality is annually devoted to the growing of any one crop. Lately the attacks of several enemies of the cantaloupe have been increasingly severe. Among them are the striped cucumber beetle, the melon louse, the mice, moles, and the bacterial wilt.

When all these are checked and the melons are almost ready to harvest, a fungus disease known as the "rust" is likely to cause the foliage to collapse like a wet collar. This causes the melons to ripen prematurely without the proper development of flavor or "netting." Netting is the design which nature weaves on the outside of this luscious fruit. All these enemies and obstacles make persistent spraying a necessity. And the "ozone" around the cantaloupe patch consists mainly of tobacco dust, slaked lime, Bug Death, Bordeaux mixture and Paris-green.

Harvesting

After the first ripe melons appear heavy pickings are the programme for the next two or three weeks. In order that cantaloupes may have any degree of uniformity in ripeness it is essential

that the farm be picked over every day, and at the height of the season the ripening may be so rapid as to necessitate picking twice a day.

Figuratively speaking, the cantaloupe has three stages in three days—green, ripe and rotten; consequently there is a very short period for marketing the crop in good condition and it is very essential that it be picked at the proper time. Only experience, however, can enable one to recognize the happy medium and to know exactly the proper picking time. When picked the melons are transferred to baskets or crates at the end of the rows; they are then collected and hauled to the packing shed. This structure is partly open, with room for storing baskets and for sheltering several loads of the packed product. On one side is a large inclined table capable of holding almost a truck-load of cantaloupes.

Crating also is not an easy matter, for the layers must be uniform and not packed so tightly as to crush or bruise the flesh; nor should there be a loose cantaloupe in the crate if all are expected to carry well.

After the cantaloupe crop has thus been carefully picked, graded and packed, success in its marketing is dependent upon placing the product in a market where it will be appreciated to such an extent that substantial evidence of this appreciation will reach the grower's lower right-hand pocket. Whether the melon producers ship by auto-trucks or wagons, express or freight, it is important that they keep in constant touch with the commission men in Philadelphia and the seashore resorts.

Great fluctuations in price through the season are possible and not altogether unusual, for the



SPRAYING CANTALOUPE VINES NEAR GLOUCESTER, N. J., CAMDEN DISTRICT

The load from the field is driven alongside this shed and emptied onto the table. In front of the table there is room for from one to four packers. Here long experience is required to be able to make a quick and solid pack. An expert packer will stand before a loaded table and pack melons as fast as he can pick them up. This selection he makes apparently at random. Of course, split, over-ripe and cull melons are thrown out while the packing progresses.

A good thing to know—you who do your marketing—is that there is a close relation between the amount and character of netting and the quality of a cantaloupe. It is therefore possible for the packers after a little experience to grade melons with extreme accuracy as to quality, on the basis of netting. As a rule the denser and more fully developed the netting the better the melon. On the cantaloupes graded as fancy stock the netting stands out like whipcords.

Crating and Marketing

This grading before crating must be done not only as to quality, but also for condition of ripeness, for there will always be some a little too ripe which must not be crated with the "greenripes." Thus, in grading, the ripe melons are often marketed in Glassboro, Pitman and Williamstown and the ones just right reserved for the longer-distance shipments.

melon market may get overstocked and the prices drop quickly. Growers depending upon such markets suddenly find themselves confronted with the problem of seeking another outlet. In and around Glassboro an excellent telephone service has made it possible for the cantaloupe and fruit growers to forget many of these problems. Furthermore, they know what they are to receive before relinquishing control of the goods.

Looking on the other side of the fence, when the markets are good the wholesale market would have no way of determining the number of baskets that the growers could furnish that day except by telephone, and without this it would be necessary to limit the orders to the supply that would be normally furnished. Thus to remind either the cantaloupe grower or the commission man of our slogan would be worse than carrying coals to Wilkes-Barre.

An Up-to-Date Parrot

A Wilmington parrot telephoned to its owner,
Miss B. Morrison, the other day, while she was
staying in Washington, D. C. The newspapers
credited the bird with a Spanish vocabulary and
said that it recognized the owner's voice and
replied with perfect ease. The usual preliminaries were of course attended to by others in the
house.

Digitized by



Chester District

A State Firemen's Association was held in Chester between September 2 and 5, when the business men there showed how well they can entertain. Everywhere buildings were decorated, and the general effect was very creditable to this city of 38,537 population.

One Pottstown fire-scarred veteran was overheard in comparing the difference between firefighting of olden times with that of to-day: "Firefightin' ain't the tough job it used to be. No, sir! Why, in the old days, by the time the laddies got the alarm and then reached the fire the place would be nearly gutted out; nowadays the boys can generally save the buildin' with half the work because they get the alarms so soon. These Bell telephones have got to be the thing!"

MATHEWS.

Germantown District

An application turned in by Harry S. Hoff in covered a four-party Northern Zone service which was finally secured after eight years' solicitation. The applicant was one of Mr. Hoff's first "prospects."

A Diamond central office operator, who was convalescing from an appendicitis operation, wrote to her chief, Miss Clara Conner, and among other things mentioned how welcome the Company's paper had been in keeping her informed of some of the local happenings. KING.

1230 Arch, Business Division

Among others, the secretary of the Market` Street Business Men's Association was recently conducted through the Walnut central office by W. H. Swain, who is following up special invitations to prominent business men.

During August, said by some business men to be the dullest month of the year, orders for 186 new stations were received over our telephone order table.

Jacob Hurwitz, formerly elevator attendant at our 406 Market Street building, in writing his resignation to take effect about two weeks later, mentioned the fact that while employed by our Company he had saved enough to pay for tuition and books for the first year in an electrical engineering course at Drexel Institute. He expects to continue his earnings in spare moments by soliciting subscriptions for three of Philadelphia's popular magazines. BRADFORD.

1230 Arch, Cashiers' Division

"I hope sometime we may again be in Phila-delphia and may use your good service." wrote a Baring (West Philadelphia) subscriber in enclosing her check for final payment prior to removal to Washington, D. C.

A Bell user in Lansdowne found himself without funds to make a call to Philadelphia. It happened that the call was an urgent one and the station happened to be one with a coin-box. The circumstances were explained and the call was completed, much to the user's satisfaction. He sent stamps promptly for the five-cent call.

Rinkedoodle Outing

By W. Bradford, District Correspondent, 1230 Arch Street

HE second outing of this club took place Saturday and Sunday, September 6 and 7, at Beach Haven, N. J. Resting on laurels as fishermen, earned in June at historic Fortescue, the members of the party this time uncorked their latent ability as fancy aquatic acrobats and beach ball-tossers.



RINKEDOODLERS AT BEACH HAVEN, N. J.

LEFT TO RIGHT:

Top Row:

L. F. Tete, Cashier's Office A. M. Dryden, Contract Office H. J. Allen, Cashier's Office

J. B. Kane, Contract Office

Center Row:

H. P. Patchett, Traffic Engineering Wm. Bradford, Contract Office A. J. Dallett, Contract Office

Bottom Row

D. W. Figner, Traffic Supervisor, Camden

F. P. Rountree, Contract Office

D. J. Cleary, Chief Clerk, Division Mgr.'s Office R. J. Snyder, Collection Agent, Atlantic Coast

Pullman chairs were none too good for the crowd on their way to the "island six miles at

sea and swept by ocean breezes." (See real estate circulars.)

Immediately upon arrival the Rinkes threw off their office airs and donned bathing suits for a lively swim in the surf. In this they astonished the spectators with their agility and daring feats.

The Engleside Hotel was the club's head-There a splendid dinner was provided quarters. in honor of the occasion. After this a business meeting was held, during which elaborate plans were discussed for the winter. Pool and other amusements followed, including dancing for those with white flannels. The evening dance at the hotels is one of the features of Beach Haven's

Choir practice" and breakfast next day were followed by races along the beach, in which the Traffic members were worsted by the Commercial. Rare sport was enjoyed by some in hunting choice marine specimens!

The party returned to Philadelphia, Sunday afternoon, with a full share of true Beach Haven sunburn and the recollection of a genuinely good time. Digitized by GOGIC

Telephones During Crisis in China

The accompanying letter is copied from the August 9 issue of the North China Daily News published in Shanghai, China. At the time of writing this letter, Shanghai was the center of conflict between the troops of the republic and the rebel army. It is interesting to know that telephone service is appreciated during stressful times even in that country. The switchboards at Shanghai are said to be operated by Chinese men under the supervision of young women foreign to that country. The Shanghai Mutual Telephone Company, as they are pleased to call themselves, offer one class of service only, that is, individual line.

> Shanghai, China. August 4, 1913

To the Editor of the North China Daily News.

Sir:—Among the appreciations of the work performed by the Volunteer Corps, the Naval contingents and the Boy Scouts during the stressful times of the past week, the splendid work of one of our public departments appears in danger of being overlooked.

During the exciting times of the past week the operators and young lady supervisors of the telephone company have been greatly overworked in keeping up with the enormous number of telephone calls that must have been turned in, and the fact that subscribers have been enabled to get through without delay and have received the same courtesy during hours of stress seems deserving of praise. At such times householders in the "Far West" have been calling up the police or anyone they could think of to complain of shells near their houses, while their friends have been calling them up to find out if they were unhurt; messages have been flying over the wires for the mobilization of the Volunteers, and the police and fire department numbers must have been unusually busy. In the circumstances the young lady supervisors who have uncomplainingly worked overtime to keep the native operators steadily at their work while the guns were booming and shells screaming over the Settlement deserve the high appreciation of the community.

I am, etc., L. D'Oliveyra, Shanghai Boy Scouts.

Plant Aid Brings P.B.X.

The imperfect wiring of a local interior system and a heavy lightning storm were the means recently of securing an application for a No. 1 residence private branch exchange.

A Conshohocken subscriber who had individual line service became very much alarmed during the storm on account of the lightning entering his house over the telephone wires and damaging his property. He thought it was due to our tele phone wires and called F. A. Harvey, the Norris town Wire Chief, and asked him to make an Mr. Harvey hurried to the subinspection. scriber's residence and found that the lightning had not entered over our wires but over the wires of a private system which were not protected. He readily explained this to the subscriber and suggested that he abolish the interior system and get a modern private branch exchange installed in connection with his Bell service. Mr. Harve then returned to his office and sent a suggestion slip to the Commercial Department. Salesman J. F. Burke secured the application for private branch exchange service on the following day BEERER.







Dittsburgh Division ~ z.z.HUGUS, Division Correspondent

Erie District

Such progress has been made in the Company's new building at Erie, it is probable that the Commercial Department will be settled in its new quarters by January and that the cut-over will take place shortly after.

SCHAUBLE.

Johnstown District

Here is part of a letter which is self-explana-

"The writer has every reason to praise the Bell. About two weeks ago, while returning from a little call on a young woman who was visiting in Greensburg, I was confronted by three negroes. This was about 12:40 A.M., and nothing could be seen on the street but a dog. I made a dash and beat them to the first arc light, which was about fifty feet more away. When they saw they could or had better not attempt anything under the light, one of them hid in a side street a short distance away, the other two took up their positions in two alleys, one on either side of the street, and they had me trapped. I immediately jumped on the porch on the corner right near the arc light and rang the bell. They answered in pretty good time and I told them how I was cornered. They had Bell service in the house and a police call was put in. In five minutes an officer was on the spot and I was able to proceed. Had no Bell service been in that corner house all avenues of escape would have been cut off."

A few days ago an automobile touring party stopped in front of our Indiana office and a man of the party came in and asked the clerk to send a message for him to a doctor in a distant town. He gave the name and location of the doctor and paid the charge for the message.

The clerk immediately placed the call with the operator and then suggested that the visitor write out the message in order that there might be no mistake. The caller started to do this very hur-

riedly, but before he was half through his party was on the line. He then stepped to the telephone and gave the message himself.

The whole transaction delayed the party just three minutes, and the patron was very grateful.

New Castle District

An application was obtained by John H. Meyer, New Castle sub-district salesman, covering the installation of private branch exchange service, furnished by 3 trunks and 69 stations, in the Leslie Hotel at New Castle, Pa.

The Plant Department completed this job in five days and had the entire system in good working order when the hotel opened September 1.

A few evenings ago the operators at New Castle who were off duty went to Cascade Park, a pleasure resort near New Castle. Supper was served in the picnic grove at six o'clock to about fifty girls and the remainder of the evening was enjoyed in dancing and other amusements afforded by the park.

A recent real estate advertisement in a Sharon newspaper contained comment on the fact that the Bell Telephone Manager had asked for the proposed number of buildings on a new plan of lots within a given period. The Local Manager was preparing his provisional estimate.

HARPER.

Pittsburgh District

A Darlington (Pa.) physician started for Chicago by automobile. He had been gone but a few minutes when he was urgently needed at home. Our Pittsburgh District Manager was requested to "run down" the doctor by telephone. He transmitted the request to District Traffic Bayly of the A. T. & T., who within a very few minutes had the automobile stopped and headed back to Darlington.

A North Side subscriber complained that her directory had been "chewed out of service" by the bulldog. In asking for another book she offered to rent the dog as an information operator.

Uniontown District

The Uniontown District continues to be benefited by suggestion slips received from the Traffic and Plant Departments. During the month of July a net revenue of \$617 and during August a net revenue of \$297 were realized from these slips.

A recent issue of the Belle Vernon Enterprise contained a lengthy article on the subject of imaginary bad telephone service. The article was well covered, covering mainly the subjects more common in these treatments.

Assistant Traffic Supervisor Gleason of the Charleroi Sub-District held an instructive meeting of the chief operators in his territory at Charleroi on the evening of September 16.

A clerk in the Morgantown Local Manager's office, while waiting at a street corner for a car, overheard a conversation of two friends and grasped the opportunity afforded by it. One said her reason for doing less visiting than formerly was because she had moved to the country, and the distance made it inconvenient. The clerk learned her address and a salesman, who was given the tip, called next day and obtained the application for service.

It was the duty of the clerk referred to in the preceding article to deliver a number of telegraph messages to a man who had recently moved



to Morgantown, where he was without telephone service. After this man had visited the Business Office a number of times to receive telegrams, the clerk engaged in a business conversation with him in which she urged him to become a subscriber. She explained that the telegrams could be delivered by telephone, thus saving him the time

spent in coming to the office for him. This argument resulted in an application for telephone service.

MISS HEPPLEWHITE.

Wheeling District

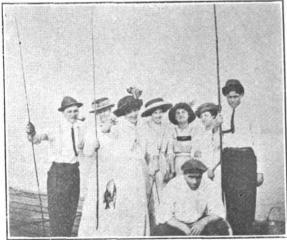
In January of this year a rivalry began between the toll operators at Pittsburgh, Rochester, New Castle, Washington and Wheeling, the object being to show the largest increase in completed toll and long-distance calls for any one month. December, the deciding month, will proclaim champion the exchange then in the lead.

A friendly relation has grown between the operators, who feel better acquainted, and at Wheeling the good effects have been especially noticeable all year. For August, 1913, there were 862 more completed calls than in August, 1912, with an excess in business offered of but 286 calls. Thus Wheeling held first place for July and August.

A bachelor while his wife was away attempted to get breakfast. For a while all went smoothly; then, at a right early hour, East Liverpool "Information" was called and asked how he should make coffee. He was told, and with this aid completed breakfast preparations.

Wheeling operators have gotten much pleasure through the public's responses to their uniformly cheerful "Number, please" and repetition of numbers, not an infrequent response being, "Yes, thank you," and an occasional "What happy girls the Centrals are." It has about the same effect on a case of the blues that the sun has upon frost.

MISS DIEHL.



TWO VIEWS OF ERIE EMPLOYEES OFF DUTY

Erie (Pa.) Good Times

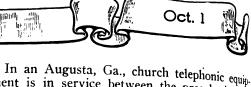
Here are two views of Mr. L. H. Knott, Local Manager, Erie, and some of his friends and associates in the telephone business. Mr. Knott camped on the beach at Waldameer, west of Erie. The tallest figure in picture No. 1 is Mr. Sarver, Local Manager, Johnstown, Pa. Directly before him and leaning over the raft is Mr. Knott. To Mr. Knott's right is Mr. Sedgwich, Troubleman, Erie

The reproduction No. 2 is from a photograph taken on the Life-Saving Station Pier, Erie. It shows how some of the Erie employees spend Saturday afternoons. From left to right in order are: Mr. Knott, Local Manager, Erie; Mrs. MacDonald; Mrs. Knott; Miss MacDonald, Adjuster, Erie; Miss Bach, Stenographer, Erie; Mrs. Fairbank; Mr. Fairbank, Supervisor of Maintenance, Pennsylvania Railroad, Erie. Seated is Mr. E. J. Cleary, Wire Chief, Erie.

difficulty in hearing him.

















TROOP "A" FIRST SQUADRON N. G. P. ON ANNUAL HIKE

WASHING

bratio

Do the job for the sake of doing it well.

October 9 will be the thirty-seventh birthday of the telephone.

A bad piece of work means a bad mind, and a bad mind means a poor workman.

A number of telephone wires connecting public call offices in London were cut recently by suffragettes.

I am only a piece of work.

Mr. Theodore N. Vail has been elected to the ecutive Committee of the New York, New Haven & Hartford Railroad.

After I leave your hands you may never see me again.

COMMISSARY WAGON

LINING UP

FOR MESS

The Pacific Telephone and Telegraph Company planning to erect a six-story central office building in Los Angeles, Cal.

People looking at me, however, will see you and, so far as they are concerned, I'll be you.

The growth of the telephone service between 1878 and 1913 in Cincinnati is graphically described in a pamphlet just published by our sister company operating there.

Put into me your best so that I may speak to all who see me and tell them of the master workman who wrought me.

The commissioners of Madison County, Ind., who reside long distances apart, recently held a meeting by telephone and passed an appropriation to pay the salary of a county official.

Say to them through me: 'I know what good work is.'

A public telephone has been placed on Pelham Road bridge, the Bronx, New York, for the convenience of automobilists. As many as 6000 automobiles cross this bridge in a day.

If I am well done, I will get into good company and keep up the standard.

"Nothing to Do Till To-Morrow"

P. WATTLES, Traffic, and R. C. Mason, Publicity, spent one week's vaca-• tion on a hike this summer with Troop "A," First Squadron, N. G. P., and they report an average day's "rest" as follows:

| [SEE ILLUSTRATIONS ON THIS PAGE] | | | | | |
|----------------------------------|-------|-----------------|--|--|--|
| A.M. | Р.М. | | | | |
| 5.20 First call. | 12.00 | Pitch camp. | | | |
| 5.30 Reveille and roll- | 12.30 | Feed and water. | | | |
| call. | | Mess. | | | |
| 5.40 Stables. | 4.00 | Squadron drill. | | | |
| 6.30 Mess. | 5.30 | Feed and water | | | |
| 7.00 Water horses. | | Roll-call. | | | |
| 7.30 Break camp. | 6.30 | Mess. | | | |

8.30 Saddle up.

8.30-12.00 Maneuvers.

A ROW OF TENTS

MESS

6.30 Mess.

10.00 Taps.

If I am shabby and poorly made, I will get into badcompany. \$225,000,000 worth of cotton is estimated as Texas' 1913 crop, a large part of which will depend upon Bell service for its disposal.

ment is in service between the preacher's desk

and certain pews for the use of those who have

Who are a little wise the best fools be.-Donne.

Near Atlanta there was maintained, during the summer just past, a telephone camp managed and enjoyed by operators and other women employees of the Southern Bell Company A committee took charge and the plan enabled many close friendships to be cemented among those who had been only slight acquaintances.

You should hammer your iron when it is glowing hot.—Publilius Syrus.

Detroit, Mich., the ninth in population claims a greater number of daily calls originating from each telephone than any other city in the country. IIt is hoped that this record is not referring to flat service.]

A good word is an easy obligation, but not to speak ill requires only our silence, which costs us nothing. Tillotson.

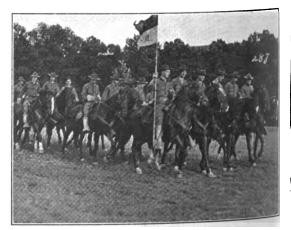
An industry was opened two weeks ago in New Village, N. J., for the wholesale manufacture of concrete telephone poles for which some scientists predict a wonderful future. The poles are molded with a hollow center and have a concrete shell about an inch in thickness, and are said to be practically indestructible.

He who reforms himself has done more towards reforming the public than a crowd of noisy, impotent patriots.—Lavater.

The Western Electric News for September contained a group photographic reproduction of 83 employees of the Company who have been employed in the New York shops for fifteen years or more prior to their removal to Chicago.

"Laziness travels so slow that poverty soon overtakes it."

The Telephone Society of Washington, D. C., took a day off on August 30 and went to Marshall Hall, twenty miles down the Potomac, for an outing. A baseball game, tug-of-war, dashes and three-legged race were enjoyed by the men and a potato, an egg-and-spoon and a candle race by the women. The affair was a complete success.



Digitized by TROOP "A" ON THE MARCH

Canoe Cruising and Camping

By E. R. Coleman, Cashier's Office, Philadelphia

The canoe trip, of which I am describing a part, was one of the best I ever had in that it caused all worry, haste and business to vacate, and did so at so low a cost that I consider it within the reach of anyone.

The cruise was from Philadelphia to Easton, Pa., and return by way of the Lehigh Canal up and the Delaware River down. The distance traveled was 150 miles and time consumed eight days. My friend and I had one canoe, tent, woolen and rubber blankets, changes of clothing,

gradual, with farmhouses dotting the landscape and the fields transforming it into a huge checkerboard. We have larger rivers in our country and perhaps more awe-inspiring, but for simple pastoral beauty our Delaware River is the queen of all rivers.

It might be well to give an account of the cost of the trip. At the start we meant to stint ourselves of nothing, knowing at the time the only things we could spend money for would be something to eat. We would stop at the villages along the canal and river, find our way to the store, and then nothing was too expensive for us. Watermelons from Georgia, cantaloupes from Colorado, peaches from the Sunny South, spring chicken,

or think, either. The man in the stern stands, looks for a place to get through, and in the twinkling of an eye we are drawn into the rapids. Steady now, steady! The man in the bow is watching for rocks. It is hard to see some of them in that mad rush of waters. Suddenly he cries, "Hard to starboard! Hard! Hard!" and then two paddles really get busy. It is soon over, and when at the bottom of the rift we look back and wonder how we ever got through. Then we both exclaim, "Me for a smoke after that!"

The next time an opportunity rolls around for you to take an outing, just listen for that call of the wild and get in touch with the army of the great outdoors.

A SNAPSHOT AT MT. TUMBLE

CAMPING PLACE AT WELLS FALLS







SMOOTH "SAILING"

cooking utensils and food, together with the usual number of "dingbats"—things that Stewart Edward White says "you think you need but don't."

It is Saturday A.M., our spirits are high and the tide is low-where we want it, for the flood will carry us to Bristol without much effort on our part. The canoe is loaded and is pounding the sides of the slip as if impatient to be off. The trip to Bristol is more or less uneventful. Here we enter the canal and immediately proceed to the office of the canal company for our permit to use the canal. It costs two cents per mile for the sixty miles we used the canal. From now on things keep getting more and more interesting. The picturesque surroundings of the canal locks, the quaint appearance of the lock-keepers, the small country urchin ever on hand to give a lift with the canoe around the locks, his chubby, freckled face beaming with satisfaction when handed a nickel for his services—all these are part of the trip.

It is now about noon and we select a bit of shade to have our lunch, a very simple one, consisting of a cup of tea, sandwich and maybe some fruit. That soon over, and the pipes filled and lighted, we are again on our way. Shortly after this we are beginning to lay plans for the first night's camp, and at Yardley we find one, having paddled the first day thirty miles. For two and one-half days we keep in the canal, and just before we get to Easton we leave the canal at a place called Raubsville, Pa. Carpenterville, N. J., is just opposite. Here we camp for the night and make preparations for our journey downriver the next day.

It is hard to imagine a more beautiful river than the Delaware from Trenton, N. J., to its source in New York. It is considered a delightful view from car window or automobile, but the most charming scenery is reserved for the canoeist as he journeys down its center. Each five or ten minutes is a change of scene. Now a mountain rises abruptly from the shore, while opposite on the other shore the slope will be more

ice cream, candy, cigars—in fact anything in sight that we wanted was within reach. Going early in July, many of these products had not been marketed by the local producers. However, at the end of the journey we balanced our account and found we had "squandered" just \$6.50 each, including everything. We had traveled 150 miles, had board, lodging, washing, mending, spending-money—in fact all that one would get on any trip, only served in a little different manner.

To recount the experiences and scenes of each day of the cruise would perhaps be tiresome to the reader, for there is a certain sameness. That, in fact, is just what we needed to insure a restful outing. Once or twice during our outing we had quite different experiences, as, for example, this one.

Breakfast over, the canoe all loaded, last night's camp exists in memory only. Away we go, no need to paddle now. The swiftly flowing current soon sweeps us into scenes anew, on, on past village after village, now under an old covered bridge, now darting around an island, now over some shallow place that permits one to see the stones on the bottom of the river, but we are going so fast they are a little more than distinguishable.

Suddenly the river seems to be rushing madly towards a certain place, and well we know what that means,—rapids ahead. We will follow the current, the best thing to do, and see what happens. First we listen, then we listen again. This time we hear sounds that have but one meaning, and that is, get ready to shoot the rapids or falls, as the case may be. Now we are ready. Everything is tied fast to the canoe. If we upset, nothing can get away. Louder and louder grows the sound that is almost impossible to describe. The inexperienced would think it merely the winds whistling through the trees. Now comes the second warning. About a quarter of a mile ahead we see dancing in the sunlight the crests of rock-lashed waves that sparkle like a myriad of diamonds. There is not long to wait now,

First Aid in Altoona

During the past year the members of the cable gang of the Bell Telephone Company have been thoroughly drilled in first aid to the injured tactics, but it was not until a day or two ago that the members of the crew had an opportunity to demonstrate their efficiency. When Dr. G. B. Hotchkin, an aged resident of the Ninth ward, received an ugly fall near where the men were working, they promptly restored him to consciousness, dressed his injuries and removed him to his home.

Dr. Hotchkin resides at 2031 Union Avenue and is past eighty-three years of age. He is a cripple and walks with a cane. In stepping from the street to the curb, within half a block of his home, he slipped and fell, his head striking the curb with considerable force.

The scalp was badly lacerated and the old gentleman was rendered unconscious by the force of the fall. Foreman C. W. Behmer and a gang of cablemen were at work repairing a cable near-by and they witnessed the accident. They hurried to Dr. Hotchkin's assistance.

The gang carried in its tool box a first-aid-tothe-injured kit, and the wound was quickly washed and then bound up. A restorative was applied and the patient soon returned to consciousness. An improvised stretcher was arranged and Dr. Hotchkin was removed to his home and placed in bed. Later a physician was called in, and he warmly praised the work of the telephone men, declaring that it was a first-class job.

Dr. Hotchkin will be confined to his bed for some time.

-Altoona Times, September 19.

Church Steeple Telephone

A telephone line running 180-feet straight up a church steeple is the odd installation reported in the Calvary Baptist Church at Washington, D. C. A July storm weakened the old steeple and the telephone was installed to aid in its removal. A new steeple is planned to be erected.



Oct. 1

Our Societies

(Continued from Page 1)

The Telephone Society of Pittsburgh

The annual election of Directors for the Telephone Society of Pittsburgh was held on Friday evening, September 26, in the Jenkins Arcade Auditorium. While the results of the election were being obtained, informal talks were in order.

The outcome of the election and the officers of the society for the coming year will be announced in the October 15 issue. There is every indication that the 1913-14 season will be the best ever in the history of the Pittsburgh society.

The Telephone Society of Harrisburg

At the first meeting of the season, held September 22 in the Board of Trade Auditorium, Mr. F. L. Devereux, Auditor Long Distance Lines Department, A. T. & T. Company, pre-sented a paper on "Some Phases of Long Distance Work.'

The paper was comprehensive and helpful, and the attendance and the comments augured well for the society's coming season.

The next meeting will be held October 20, at which time Mr. J. M. Repplier, Division Manager, Atlantic Coast, will speak. His subject has not been announced.

The Cross Talk Club

Hotel Vendig, 13th and Filbert Streets, Philadelphia.

Thursday, October 2, 6:15 P.M. Speaker: Mr. W. B. Clarkson, Division Manager, Pitteburgh.

Atlantic Telephone Society

The annual meeting of this society will be held September 23, to elect officers for the ensuing year. The present officers are—Frederick Renwick, President; F. L. Howe, Vice-President; E. R. Somers, Secretary and Treasurer.

Camden Telephone Society

The first meeting of the season will be held Thursday evening, October 16, at the Goff Building, 23 Broadway. There will be no special speakers, but the election of officers will be held.

3290 Club

The first of the season's meetings will be held at Lansdale, Pa., Wednesday evening, October 15, at 8 P.M. The speaker and subject will be announced.

Trenton Plant Club

215 E. State Street. October 9, 8 P.M.

This meeting is held principally to plan the meetings of the season and to elect officers.

Mr. Philip C. Ragotzky will give a short talk on installation work.

The Diamond State Telephone Society

601 Shipley Street, Wilmington, Del. Thursday evening, October 16. Speaker and subject will be announced.

Organization Changes

Philadelphia Division Effective September 11, 1913.

J. M. Brown, Jr., Cashier, Central District Office, has been appointed Manager, Business Office, Philadelphia District.

W. R. Myers has been appointed Chief Clerk, Business Office, reporting to the Manager, Business Office, Philadelphia District.

R. E. Patterson has been appointed Cashier, Business Office, Philadelphia District, reporting to the Manager, Business Office, Philadelphia District.

G. K. Warn has been appointed Collection Attorney, reporting to the Manager, Business Office, Philadelphia District.

D. J. Cleary is now Chief Clerk, Philadelphia Division Manager's office.

K. H. Huch has been promoted from Cable Specification Writer to Cable Engineer, Philadelphia Plant Division, effective September 22, 1913.

F. P. Frazer, formerly an installer, has been made Storekeeper at Wilmington, Del.

W. Groman, formerly a clerk, is now Storekeeper at Allentown.

H. W. Smith, a central office man at York, has been made Central Office Wire Chief there.

A. G. Schminky and J. Wynkoop, Combination Men at Mechanicsburg and Waynesboro, have been appointed Central Office Wire Chiefs at those places.

J. H. Harbison, Combination Man, has been advanced to Plant Wire Chief at Uhrichsville, Ohio.

W. J. Duquin, Wire Chief at New Castle, Pa., has been transferred to Niles, Ohio, as Plant Wire Chief.

Western Pennsylvania Service Company Picnics

On September 12 the Farmers' Mutual Tele. phone Company of Washington County, Pa., held its picnic on the farm of J. C. Pease, a Director, who lives about three miles from Washington, About two hundred persons were present and despite inclement weather conditions, the affair was thoroughly enjoyable.

The present officers of the Company are-R. L. Munce, President; John Fulton, Treasurer; B.K. McConnell, Secretary; and J. C. Pease, Director.

Since its inception, nearly ten years ago, the Farmers' Mutual Company has enjoyed steady growth until at the present time there are 950 subscribers receiving service on a Plan "A" hasis through our Washington and Canonsburg exchanges.

The address of welcome was given by President Munce; Secretary McConnell ably recited the history of the Company from the time in 1904 when it was a mere idea in the minds of a few people. He also outlined methods of improving the service, and ended with a brief eulogy of the patient operator.

Short talks were given by the representatives of the Central District Telephone Company who were present: C. Montague, Local Manager, Washington, Pa.; E. C. Bates, District Manager, Pittsburgh, Pa.; and J. A. Connell, Special Agent, Pittsburgh Division Manager's Office.



SEWER BREAK WITH TRUCK THAT DESTROYED OUR CONDUIT

SEE FORMER CABLE BEHIND CENTER OF TRUCK AND EMERGENCY CABLE ON SIDEWALK BEHIND TWO MEN AT THE LEFT

Emergency Repair Service

From the north-central part of Philadelphia diagonally to the Delaware River runs the famous Cohocksink sewer, formerly the historic Cohocksink Creek. The construction methods employed in the building of this outlet would not be passed by engineers of the present day, for breaks and sinking at various places have occurred from time to time, causing much damage to streets, underground pipes and near-by cellars and foundations.

On September 18 a three-ton truck belonging to a metal firm proved too much for the sewer arch under Thompson Street between Eighth and Ninth Streets, and dropped about half out of sight. The chauffeur, who was somewhat bruised, crawled out just in time to miss further injury from an explosion of gas which followed.

The gas pipes and water mains were broken, requiring immediate action on the part of those responsible for their maintenance. As very frequently happens in such accidents, the telephone plant came in for its share of loss. At the near est manhole, at Eighth Street, there is a 5-wa splice of one 55- and one 110-pair cable, and at the corresponding manhole in the other direction (Darien Street) there is a straight splice. The weight of the car and débris pulled both splices. parting the wires and causing trouble in all of the pairs between these manholes.

W. J. Wood, our Trouble Foreman, arranged for the laying and splicing of a temporary call along the sidewalk and had it covered with a spice wood duct to protect it from passers-by.

Plans were then made to run a temporar aerial cable on near-by poles until the street in pairs to the sewer, requiring several weeks, out be completed so that permanent cable work could complete our job.

One of the city's large wholesale meat dealers is served through this cable run, as well as number of other business firms on Girard Ave nue. Their service was practically continuous. the break occurred late in the afternoon, and temporary repairs were made that night.

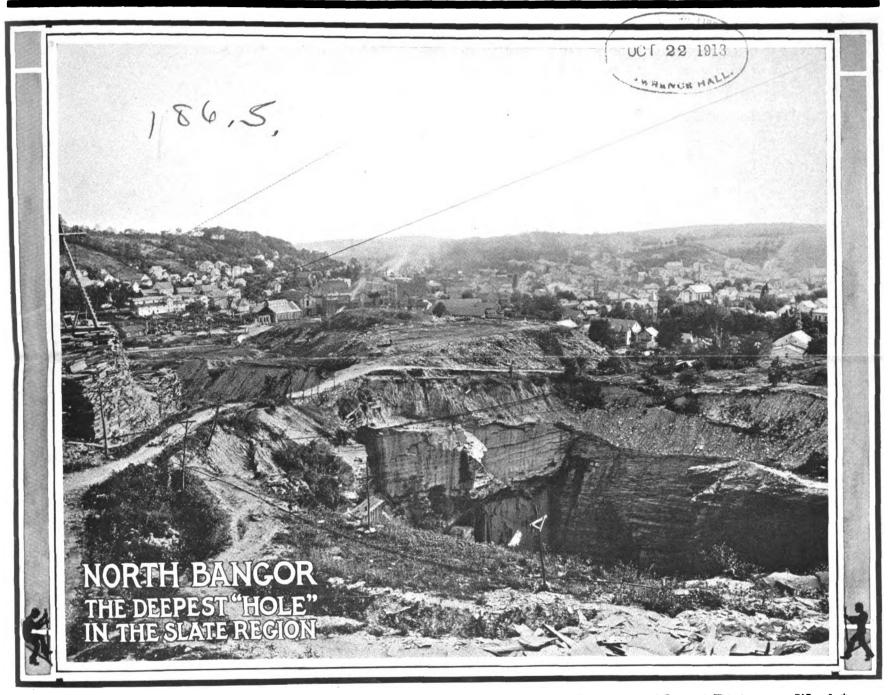


VOL. IX

PHILADELPHIA, PA

OCTOBER 15, 1913

No. 20



The Pennsylvania Slate Belt

A Rich Slate-Producing Community Finds the Telephone an Absolute Necessity

O you realize that one of the mementos of your early days is swiftly passing away unnoticed? We refer to those six by twelve rectangles framed with their red woolen bindings. Yes, we mean those old school slates with their scrawling figures, all-important messages and portraits of "TECHER." With the exception of rings, probably nothing of so little size has caused us so much pleasure and sulking any time since. And now to think that "slates" are fast becoming a thing of the past and the old cracked ones have not been renewed! It is true that folks who cannot be expected to keep up with the styles—folks long since dead—still sometimes make use of slates in a small way at séances. But the small

(Continued on Page 2)

Some Phases of Long Distance Work*

By F. L. Devereux, Auditor, Long Distance Lines Department American Telephone & Telegraph Company

IN 1883 and 1884 the American Bell Telephone Company of Boston strung two No. 12 copper wires between New York and Boston for experimental purposes. After numerous successful demonstrations the feasibility of talking over the telephone between distant points was established, and it was decided to organize a corporation to handle this long-distance traffic. As the outcome the American Telephone & Telegraph Company was incorporated on February 25, 1885, purchased this pair of wires, and operated them between New York and Boston. This was the first long-distance line. The first actual construction undertaken by the American Telephone & Telegraph Company was the New York-

*Excerpts from a paper presented September 22 before The Telephone Society of Harrisburg.

(Continued on Page 14)



Oct. 15

The Pennsylvania Slate Belt

(Continued from Page 1)

demand created by our present schools and spiritualists would never keep the slate industry "going."

Nevertheless they are still making school slates, but most of them are being shipped to South America, China, Japan and Australia. It is these far-away children that to-day are wetting the end of their slate-pencils to make them squeak. And what is as surprising as anything about the whole affair is that these Asiatic and South American countries are getting most of their slates from Northampton County, Pa. For this section, together with Lehigh County, forms the front, back and side yards of the Slate Belt. This particular slate belt is a mighty important factor in the slate industry of the world.

The Home of Slate

While slate is found in a number of regions in the United States, all the states together produce less than Pennsylvania. And Northampton County turns out three-fourths of the Pennsylvania output. Thus this slate belt produces about 69 per cent, of the total quantity of the whole country.

This slate, like all slates, comes to us unchanged from its natural mineral state except in form. It has no joints, no preservative or chemical treatment whatever. Any interest in the production of slate, then, naturally first centers on the means by which it is secured. Most all slate quarries are worked from the surface. Thus, if you are of a commercial turn of mind, you judge that this means the older and deeper a quarry becomes, the greater becomes the expense of operation. And this does hold true to a certain extent.

How, you wonder, can they blast out such large pieces of slate such as are used for blackboards? The answer is, "They don't." To be more exact, they do very little blasting owing to the fact that this means of loosening the slate beds often does considerably more harm than good—like an insect destroyer that a New Hampshire farmer invented which not only killed the parasites but also the chickens! Blasting, therefore, is seldom used.

There are as a result no "big-crash, all-over-



A SECTION OF THE LARGEST QUARRY IN THE SLATE BELT. NOTE THE "MOTION SHANTY" AT THE RIGHT AND THE TRIMMING SHANTIES AT THE TOP OF THE DUMP

but-picking-up-the-pieces" methods about the slate industry; not a bit of it. The fact of the matter is that every operation about the quarries is as excellent an illustration as could be found of a well known business slogan, "Keeping everlastingly at it brings success."

Pen Argyl and Bangor are banked in by tremendous dark gray mounds. Not a very gay and cheerful aspect, to be sure; but the inhabitants have been "brought up" on this kind of scenery, and the interesting operations that the visitor feels lie hidden behind those forbidding-

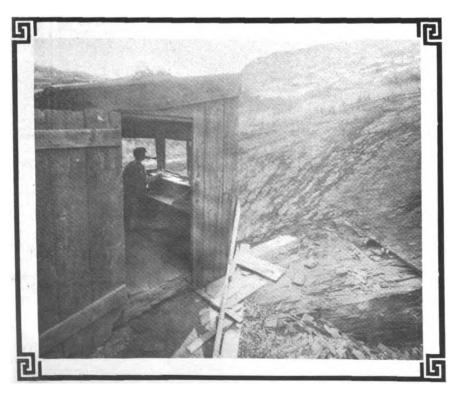
looking heaps overshadow the fact that these surroundings do not furnish the summer resort booklets with many illustrations.

Wading along a winding road covered with pulverized slate brings one soon to numerous "sidings" that curve sharply upward. If you are a stranger in Bangor, your curiosity will be such that you will probably turn in the first "siding" that you come to. Climbing along roads and paths, it is discouraging sometimes, after walking a quarter of a mile, to find oneself brought back to a point only about fifty feet above the place where "your bearings" were last taken. However, as your path turns around the next corner, you suddenly halt, for here the "topography" at the side of your path drops abruptly down several hundred feet. Such a sight as is below you is well worth a much longer trip.

The Dump-Piles

It is hard to realize that men with the simplest of tools could excavate such a deep hollow—a deep hollow with its sharp and irregular lines broken only by the enormous dump-piles that slant down into the shaded depths. As you look, a little "runt" of an engine swings into sight on the opposite side of the quarry, tugging along two diminutive loaded cars. It puffs around a small winding track with unparalleled rails—a track such as would make any Southern railroad feel very proud of its equipment. When this dwarf train reaches the middle of a trestle it stops and the little cars rear up on their sides and add ther mite to the dump-pile.

There can be heard peculiar hollow-sounding shouts vibrating from time to time up out of the depths that inform the visitor standing on the surface that the quarry is inhabited. Then, once in a long while, there is a rumble rapidly increasing in volume until it becomes a most destruction.



MOTION BOY
TELEPHONING
DIRECTIONS TO
THE ENGINEER



tive-sounding clatter that ends in a splash, followed by prolonged echoes. This is caused by the slate at the top of the dump slipping and taking with it huge masses as it rushes down into the bottom, where there is usually a quantity of water. The water does not, of course, cover the the whole bottom, but is confined to the end of the quarry not in use, and generally at the bottom of the dump-heap. To show how much trouble this water causes, it is sufficient to mention that quarries when neglected soon fill with water, consequently it is necessary for quarry owners to provide for this by the constant pumping out of the water from the green pool that is found occupying a small section of every quarry.

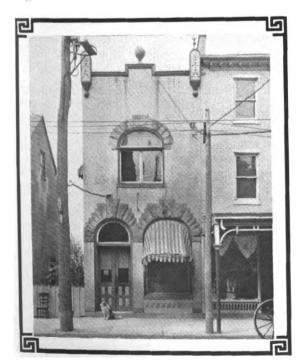
Down on the drier bottom, like so many ants, are groups of men plugging away at huge blocks.

Drilled and Pried Out

These blocks are cut out by means of a channeling machine driven by compressed air. said to be four times as fast as steam. powerful rapid-fire machine makes a series of cuts at right angles to each other in the face of the rock, until a block can be broken off at its base by wedges forced into these cuts. When the men pull this slate away in its big rectangular shape the removal permits access to other blocks, and so the work goes on year after year. As has been stated, dynamite is seldom used and the bulk of the extracting of these large slabs is accomplished by drilling. When, however, explosives are used, they are of such a character as to throw out or detach masses of rock with as little splintering as possible, for this splintering, naturally, destroys the blocks for slate-making. The mass thus loosened is pried out with crowbars. The good blocks are then sorted and sent above to be split and dressed into marketable slate.

Motion Boy and Telephone

All these operations are watched by the eagle eyes of the "motion boy," who never moves. This boy is always perched in his little shanty overhanging the great pit. The motion shanty is so situated that its occupant can keep in view the entire floor of the quarry, or rather his section of the floor. When a block has been extracted the boy telephones to the engineer to send a billy wheel and chain, and a jet of white steam shoots into the air calling the visitor's attention to the engine house in the distance.

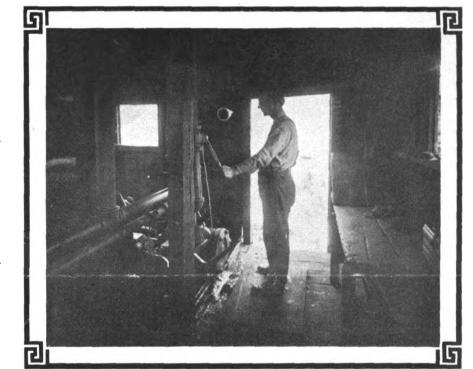


GENERAL OFFICE OF THE SLATE BELT TELEPHONE & TELEGRAPH CO. AT NAZARETH, PA.

It would be impossible to build an engine house so that the engineer could observe the bottom of the quarry where the operations take place, consequently every engine house has direct communication with a motion shanty. The engineer has merely to operate his engine and follow the directions that come to him through a horn attached to the wall near his head. The unhesitating manner in which the big chain drops by the block of slate and then, as soon as it is securely attached, rises and carries its heavy load dangling through the air straight to where it is wanted -all this seems almost uncanny. At least it seems so, until one climbs out into the motion shanty and hears the boy talking into a familiar-looking transmitter definite instructions that guide every movement of this hauling ap-

After splitting, these plates are then placed horizontally on a stand by the dresser and cut by a trimming machine into slates of the desired size. Slate is sold by the square, a square being a sufficient quantity to cover 100 square feet. Thus the number of pieces in a square runs all the way from 85 to almost 700, according to their size.

Slate used for roofing is not necessarily of so fine and smooth a texture as that produced for other purposes, but it must be hard and strong and naturally must contain no minerals which decompose under atmospheric conditions. dressing gang also see that the color is uniform. If it is free from streaks it is classed as the better or No. 1 grade. On the other hand, if the slate is full of streaks, or ribbons as they are called,



INTERIOR OF AN ENGINE HOUSE SHOWING ENGINEER HOISTING THE QUARRIED SLATE ACCORDING TO INSTRUCTIONS RECEIVED OVER THE TELEPHONE

NOTE MEGAPHONE OVER TRANSMITTER

paratus. One motion boy can thus run four ropes, telling the engineers which hoist to use, when to hoist, etc., since he has a separate circuit for each engine house and a switching device connecting them. When the masses, weighing from three to six tons, are brought to the surface they are gently dropped into waiting cars and carried a short distance to be split and dressed. The rock splits best when it is "green" or freshly taken from the quarry.

Later Uses Vary the Methods Employed

At this point the method of handling the rock differs slightly according to the use to which it is to be put to later. The men who re-form these slabs into marketable shape are known as the dressing gang, and the work is done for the most part by hand. If, for instance, the slate is to be used for roofing purposes, the men work in groups of three. The splitter places a block on end between his knees and with chisel and mallet splits it into plates. Slate, as is probably known generally, is simply a clay rock which has been subjected to compression during the mountainmaking processes affecting the earth's crust. As a result it splits readily into thin sheets, at right angles to the direction in which it was squeezed. The splitter divides the block into as many plates as possible of the usual thickness for roofing about 3/16 of an inch. However, this thickness varies somewhat, according to the size and strength required. The roof of the Harriman residence on the Hudson, for instance, was started at the eaves with 11/2-inch slate and finished at the peak with ½-inch stock.

it is marketed as second grade. But even apparent defects sometimes are not drawbacks in selling roofing slate, for at a quarry where the cleavage of some beds was slightly curved, the slates made there were in demand for the roofing of towers

At another quarry men were noticed punching holes in the slates before they were packed. This was done, it was explained, because this roofing slate was to be shipped to Calgary, in western Canada, where they were still unfamiliar with its use, having placed their first slate order the year before. This order was for twelve carloads, the freight on which amounted to more than the value of the slate. Long shipments, moreover, are not unusual, as the Slate Belt sends its product to every corner of the United States, Canada and the West Indies, and also exports much slate other than roofing. For, while perhaps the largest amount of slate is used for roofing, it has a seemingly unlimited variety of other uses that are never thought of by most of us. Perhaps you sat in front of an electrical switchboard to-day or at a soda fountain last night made of slate. A friend may be inclining over a slate-top billiard table even now, and your laundry more than likely came out of a slate laundry tub.

As you probably suspect, a very large amount of slate is used for blackboards; but did you realize that the requirements for this purpose are most exacting? First, they must be cut in very large sheets. Not only must they be of unfading color, but the frequent application of chalk and the erasure of it has a disastrous effect on a soft, open-grained blackboard. Inasmuch as the

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The Pennsylvania Slate Belt

(Continued from Page 3)

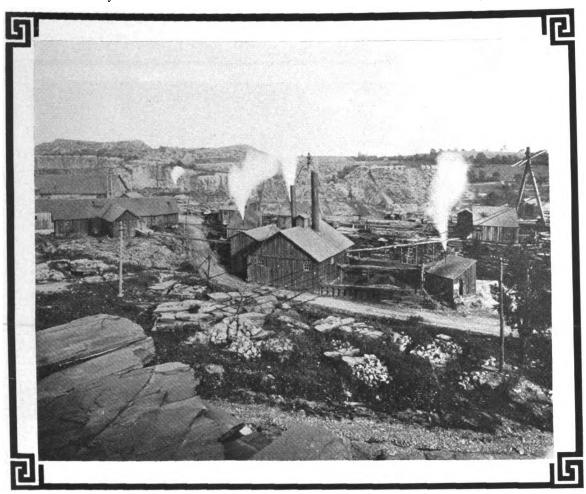
strata of slate near the surface are the softest, and the hardest and toughest are the farthest in, it is only the deeper quarries that can produce good blackboards.

Among other commercial uses might be mentioned acid vats, laboratory and sanitary ware. Most of this millstock is being milled by quarrymen operating their own mills. The fact that slate is usable for such a wide variety of purposes, from billiard tables to grave vaults, has led somebody enthusiastically to remark that "this stone

Italian employees for them to have their own settlement near Bangor. There they govern themselves in such a manner that a student of political science could hardly improve their system. These Italians are like the rest, English-speaking.

Work on Percentage Basis

In many quarries the actual makers of commercial slate work on a percentage basis, receiving so much per square. This system has proved very satisfactory for both employee and employer, and it explains why overseers are so "few and far between." The wages paid the workers



TYPICAL POWER HOUSES WITH HOISTING AND PUMPING MACHINERY

has become linked with some of the principal necessities of life and death."

Even the "marble" for some of the wainscoting and stairways of the State Capitol at Harrisburg was supplied by the Slate Belt. This process of "marbleizing" slate has been in practice for a good many years, and it is a safe bet that about one-half of the existing parlor mantels, with their clocks and tilework appearing like marble, are nothing but Northampton County slate.

The workmen in this belt are proud of the fact that their mantels are "real slate." And right here it might be said that most of these workmen own their homes and are a thrifty lot. The workman that one finds in the engine house, in the trimming shanties and down at the bottom of the hole are all educated, English-speaking men. As a matter of fact, at the Pen Argyl quarries there are more Englishmen employed than any other nationality, while at Bangor the majority of workers are Welsh. For the first quarries to be worked in this country were operated by Welsh miners, and consequently Welsh methods of extracting slate were introduced that still prevail. There are besides these two predominating races many other countries represented in the Pennsylvania slate industry. In fact there are enough are uniformly good and often higher than those paid to those engaged in similar vocations.

Most of the money earned or made in the slate industry has stayed in the locality. In manufacturing, three items as a usual thing enter into the expense account pretty heavily; namely, the cost of raw material, the cost of labor and that of producing the finished article. Generally the money spent for two of these stays in the home town, while the rest goes elsewhere. Comparing these conditions, as found in manufacturing cities, to the Slate Belt and it is easy to understand why the money all remains in such towns as Nazareth, Pen Argyl and Bangor, compelling the towns to grow and prosper. Take, for in-stance, Bangor; in spite of the fact that it has no connections with the outside world but the telephone, the street-car and a freight line, it has been a remarkably prosperous town. Do not let the fact that you have heard of other towns, nearing 6000 population, boasting lustily cause you to smile and knowingly raise your eyebrows when you read of Bangor. For this town has the cards to back up its bid for recognition as a well-to-do community. Perhaps nothing is so significant as the fact that there is one automobile for every seventeen men in Bangor, this

being the record percentage of the country.

Largest Quarry

It stands to reason that the quarry owners are not the only ones that possess machines, because there are not enough quarries to go round—the number of active quarries around Bangor totaling less than a dozen. Of these the largest is the "Old Bangor," owned by J. S. Moyer & Son, and opened over fifty years ago. Their extensive operations not only cover a great acreage but they have a much larger amount of equipment than any of their neighbors. In fact, their very size requires many machines and operations that are not necessary in quarries of the ordinary dimensions.

The deepest quarry, however, is the "North Bangor," which has been in continuous operation since 1873. It is not advisable for nervous strangers to approach this plant by means of automobile or carriage, for the road, unprotected by fences of any kind, drops abruptly off on one side 250 feet, while on the other the roadside lies 400 feet below. Holding onto the ever present telephone pole, and peering over the edge, it is possible to distinguish the "little" operators working in the dark shadow of this deep, cylindrical opening. The men get in and out of this 400foot hole by means of a small platform, on which they travel the same route as the slabs that they have pried loose. Standing in a compact group of four or five, they are run down an inclined cable until directly over the quarry, when they are dropped down by the engineer letting out more cable, with not nearly the concern that a fisherman exhibits in letting out his line.

There is one exception to this mode of reaching the bottom. An old character, Dick Jones, doesn't think the way just described is exactly risky, but just the same he prefers not to trust the cable. Twenty-three years ago this man lost his arm putting up a derrick. After this accident he was given employment fixing the boiler and also attending to the pump. Remarkable as it may seem, for twenty years this one-armed man crawled up and down a rope ladder these several hundred feet. And if Dick Jones only had another arm like his "stand-by" there would no longer be any indecision about a "white hope."

There are numerous other quarries in this region each of which has one point or more of special interest. One of the most interesting is the Eclipse Quarry run by H. J. Masters. This was one of the first slate companies to use the telephone as an aid in quarrying, and for the last seven or eight years the management has perhaps derived as much benefit from telephone service as any of the other up-to-date quarries.

The Outputs

Statistics have no special charm for the outsider, and yet visitors invariably ask how much is "turned out." Take, for example, the quarrillustrated on the front page; Mr. W. H. Smith says that the output for last year was 20,000 squares of millstock and an equal amount of blackboards. This is perhaps somewhat above the average however, due, among other things, to the fact that Mr. Smith is a hustling sales manager.

Rather than try to search farther for a quarry producing a fair average it might be well to state that the total output of the Slate Belt region is 800,000 squares of roofing slate, 1,500,000 square of millstock and 2,800,000 square of blackboards.

In placing this output the quarry owners depend to a large extent upon long-distance telephone service. And because these quarryment realize that speed is one of the fundamentals of business success, they talk frequently to customers.

(Continued on Page 12)



Vibrations

"Don't be a sinker, be a corker."

The Telephone Pioneers of America now number 1150.

"Respect every man's opinion, act on your own."

Canadian authorities state that there are now about 400,000 telephones in service in the Dominion.

"Character is what a man is in the dark."

Consul Edward J. Norton states that the Bombay (India) Telephone Company now operates 4170 stations and 250 private line installations from the central office.

"Don't try to 'stand in.'"

The safeguarding of telephone employees is commented on by Mr. L. H. Kinnard, our Second Vice-President and General Manager, in *Telephone Engineer* (Chicago) for September.

"An empty wagon makes the most noise."

The Western Electric Company has signed a contract with the authorities of Changsha, China, for the installation of a thousand-line, modern, central battery telephone exchange. It is hoped that the work will begin November 15.

"It is easier to keep up than to catch up."

Dresden, capital of Saxony, to-day is threatened with a year's deprivation of its telephone system just because the townspeople have been making so many complaints of the federal telephone service on the semi-automatic exchange.

"Genius wins sometimes, hard work always."

The manufacture of porcelain insulators is thoroughly treated in an article in the *Telegraph* and *Telephone Age* of October 1. From mining of the clay under water to glazing of the finished product, every process is plainly explained.

"Be saturated with sticktuitiveness."

Officials of the telephone and telegraph divisions of the British Post Office Department have been engaged in a quarrel for some time. The lack of teamwork has now been made more apparent by the adoption of separate codes for the two systems, although the same clerks do both the telephone and telegraph work.

"Those who wish to appear wise among fools, among the wise seem foolish."

The Pennsylvania Railroad Company, which is recognized to have many problems similar to those of the wire companies, has begun the issuance of posters, 14 by 24 inches, to acquaint the public with its recent accomplishments and aims for betterment of the service. The first of these deals with the increasing rate of wages, cost of operation and cost of capital, the second is devoted exclusively to grade crossings and their removal.

In System for October there is a mighty fine article, "Common Sense in Salesmanship," by Mr. S. M. Greer, General Commercial Superintendent of The Chesapeake & Potomac Telephone Company. If you are a salesman or sales manager, read it.

Ask yourself each morning, "What is the most disagreeable thing I have to do today?" Then do that first.—W. F. O'Donnell.

Charles M. Steinert, a driver, is working on a telephone equipment that will be usable under water. When perfect it will eliminate the old rope method with pull signals used for so many years, inasmuch as the talking circuit will be enclosed in the life-line. Receivers inside the helmet fit over the ears, and a transmitter is also enclosed in the head covering While in 40 feet of water he has kept up a 20-minute conversation with this equipment.

"Take time to think."

War has become a business as matter-of-fact as a department store. Its victories are to the scientist, the mechanician and the organizer—to the laboratory, the card-index and the telephone.

A modern general manages a war without ever being near the battle. Well to the rear of the army, he sits at a telephone and gives orders from a perfectly prepared map. By pressing a button he can know instantly conditions in any part of his army, just as a railway president, by pressing a button, can learn the passenger receipts at any station on his road.—Frederick Palmer in September McClure's.

The Norwegian precept is a good one: "Give thyself wholly to thy fellow-men; they will give thee back soon enough."

In a recent election at Savannah, Ga., the question was under consideration as to whether or not bonds were to be issued to insure the building of a public auditorium. Some young women who offered their services to the Chamber of Commerce were assigned to the telephoning of Special telephones were installed and every eligible voter on the rolls was called and requested to cast his ballot. Although not themselves qualified to vote, weather prevented outside work during part of the critical time, but the women telephoned more persistently and won their point. Savannah women have taken an active part in local affairs, including the appointment of a matron at the police station and in representation on the Board of Education.

Don't try to eliminate the old-fashioned virtues many have tried with indifferent success. No good substitute has yet been found for simplicity, frankness, sobriety, industry and sincerity.—The Philistine.

Abyssinia is being provided with the telephone -another advance, surely, of civilization. Nearly eight hundred miles of wire have been put up, and one thousand more are in process of construction. It would seem, however, that the contractor who is doing the work for the Abyssinian Government has had to encounter unusual difficulties. Tropical rains wash out the poles, white ants eat away the parts in the ground, and when iron poles are substituted for wood the natives steal them to make tools of. Monkeys find the wires delightful swings, while elephants use the poles as scratching posts, and often knock them down. Lastly, the jungle grows so fast that a party of men is kept constantly employed in cutting away the young growth. The telephone constructor's life in Abyssinia is not a happy one.

New Quarters at Moorestown, N. J.

By D. W. Figner, Assistant Traffic Supervisor, Camden District

OORESTOWN, an attractive residential town 11½ miles east of Philadelphia, that needed new central office quarters, has obtained its requirements. On Sunday, September 28, at 10:27 A.M. the cut-over to the new switchboard took place under the supervision of W. F. Repp, Plant Supervisor, and W. C. Culin, Plant Wire Chief, together with T. F. Swords, Traffic Supervisor Atlantic and Camden Districts.

At the time of the actual transfer (requiring fifteen seconds) there were twelve conversations going on. The same connections were put up on the new switchboard, and the users were unaware of the change.



NEW CENTRAL OFFICE BUILDING AT MOORESTOWN, N. J.

Only one line was out of service, due to solder which had fallen across two lugs on the main frame. As that line was not then being used, no subscriber was inconvenienced.

The new four-position (three "A" and one toll) No. 10 switchboard of 1600-line capacity is now equipped for 500 subscribers' lines and 30 toll lines.

A year ago (August, 1912) a three-story French roof frame building was purchased at 205 Chester Avenue. General alterations were made, including the fitting up of the first floor for a terminal room and the second for an operating room.

Moorestown, with 138 business and 450 residence stations, has for some time run neck and neck with Merchantville (six miles nearer Philadelphia) when stations in the towns are considered. The former has over 200 more service stations, however, which bring its total to 825 as compared with Merchantville's total of 612 stations. As 75 per cent. of Moorestown's and 86 per cent. of Merchantville's stations are on a flat rate basis, the operators have the usual heavy local traffic.

The population of this central office district (Chester and Mt. Laurel townships, together with one-quarter of Delran and one-fifth of Cinnaminson) is 7153, so that the telephone development (11½ per cent.) is considered fairly satisfactory.

Watkins Glen and Niagara Falls

By Miss M. F. Harrison, Payroll Division, Accounting Department, Philadelphia

PLANNING this summer's vacation, I was undecided whether to accept an invitation to visit friends in Connecticut or to see Watkins Glen and Niagara. Finally I decided on one week in Niagara and one in Connecticut.

On Monday morning I left Philadelphia, and arrived in Burdett, N. Y., the same evening, taking 'bus from there to Watkins, which is three miles distant. This same 'bus is without springs and one can get not a little exercise on this ride without much effort.

Next morning I spent exploring Watkins Glen. This used to be quite a feat some years ago, but the Glen is now owned by the State of New York and everything has been done to make the ascent easier, such as handrails, concrete steps, etc., for the more dangerous places; not so picturesque but far safer.

The Glen is one of nature's wonder places, and you leave it wishing you had more time to revel in its beauty.

Leaving Burdett Tuesday afternoon, I arrived in Niagara the same night and had my first glimpse of the Falls by moonlight. They are beautiful then; but it is in the day, with the sun upon them, that you realize how truly wonderful they are.

I spent one day in Toronto and I looked forward to the boat trip with no little dread, for so many people told me how sea-sick they had been. The weather was ideal, however, and the trip across was no more exciting than a sail on the Delaware.

I left Niagara Friday morning, stopping off at Buffalo for a few hours, going from there to Albany. From Albany I took the day boat for New York. This ride on the Hudson is truly delightful. In some parts the scenery is magnificent and there are so many places of interest— West Point, Tarrytown, and scores of others, together with many beautiful residences.

I arrived in New York the same evening after a rather strenuous week, feeling that the decision to spend the second week in New Britain, Conn., had been a wise one.

Quite a lazy time was spent here, resting and taking short trips. From New Britain many delightful trolley rides may be taken, long or short, through beautiful New England country. Hartford is only ten miles distant, and just outside the city is Elizabeth Park, small but beautiful, famous for its flowers, particularly its rose gardens. It is the only place I have ever been where one sees "Turf Walk to ——" instead of "Keep off the Grass."

The weather during the two weeks was ideal, delightfully cool and no rain, and I returned home refreshed in mind and body and feeling that the vacation had been a "success." I enjoyed it more perhaps because it was a trifle different from my other vacations.



Bridgeton Sub-District

The following up of a case the other day worked doubly to our advantage. R. J. Snyder, Collection Agent for the division, in handling a final bill for a large amount, was told that the subscriber was somewhere on the Maurice River

but would not return until night. He spent twenty-five cents for a motor boat, located the former subscriber, and collected the whole amount. Furthermore, he "signed" the man for an individual line and an extension and left him in the best of good humor.



HOW HOUSES ARE RENTED IN WEST CHESTER, PA.

Camden District

Clerks who speak more than one language are very necessary in some of our Pennsylvania offices, but they are rather scarce in business offices in other parts of the territory. In Camden a subscriber found difficulty in making her request for adjustment clear until Miss Ginsburg, a clerk who speaks German fluently, asked. "Wollen Sie lieber auf Deutsch sprechen?" The visitor's face lightened, and when she left, after completing her business entirely in German, she was much pleased.

WRIGGINS.

Trenton District

Three old reports from the Daily State Gazette, Trenton, N. J., are here printed:

(January 5, 1878.)

THE TELEPHONE

"Mr. John A. Wright, agent for this state of the Telephone Company of New York, placed a wire between the offices of the State Comptroller and the Quartermaster-General in the State House yesterday for the purpose of putting the new invention to a test.

"What is known as the 'speaking telephone' was tried and it seemed to work well, the sound of the voice being heard distinctly from one office to the other.

"Mr. Wright stated it was his intention to have the Senate and Assembly chambers connected by telephone with the heating apparatus of the State House, so that the engineer in the latter place may at a moment's notice be instructed to regulate the temperature in both chambers to the most comfortable degree.

"Mr. Wright states that the State House will soon be connected with the State Arsenal in the

same way."

(February 21, 1878.)

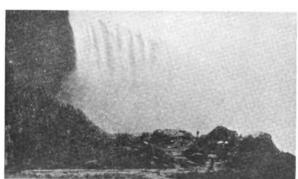
"One of the most pleasant features of the supper given by the ladies of the Second Presbiterian Church last evening was the admirable arrangement of the telephone by Mr. John A Wright. He had an attachment made with life office, running his wire through the hall, and placed about a dozen of the trumpets for the use of the people. A large number availed themselve of the privilege of passing the messages over the wires and were highly delighted with the resultation.

"It was one of the most entertaining thing of the evening."

West Chester District

Two automobile runabouts are being used the Commercial Department in this district will great success. The distances covered and the

THE FALLS
FROM BELOW





CANADIAN FALLS











SCENE IN WATKINS GLEN low maintenance costs show decided savings over the former expenditures in carfare and time. One car since August 21, 1912, has traveled approximately 18,000 miles. It is used by N. C. Bromall, who, although a salesman, has had sufficient experience as a machinist to make all of his own repairs. The other, purchased in June, 1913, for A. E. Townsend, salesman, has covered 11,000 miles and has helped materially in its share of the sales accomplished.

GREENFIELD.

MEN WHO

DIRECT

WESTERN ELECTRIC WORK IN

MESSRS.

L. R. BROWNE

J. D. KENNEDY



OUR BOOTH AT DELAWARE STATE FAIR, WILMINGTON

Wilmington District

The fifteenth annual exhibition of the Delaware State Fair Association was held in Wilmington, and our Company, as usual, had the various offices and departments connected by a No. 1 private branch exchange. A 30-line board served by four trunks was situated in the center of a booth designed and trimmed by Wm. M. Hanly of the Commercial Department. Miss Grace Ringland, the operator, was on duty from 8 A.M. until 5 P.M. After that hour four public stations were trunked through to the central office. Various types of equipment were shown and fans, bell bangle pins and advertising matter distributed. Several applications were taken for service by B. C. Kirk and A. L. Chambers, and a number of service prospects were obtained.

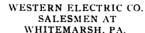


Mr. J. P. McQuaide, Acting Stores Manager

Employed by Telephone Company in Supply Department, November, 1898, in charge of serial number ledger of receivers and transmitters; in charge of stock of apparatus, 1901; Assistant Storekeeper in charge of sub-warehouse, Ninth and Oxford Sts., 1904; successively in charge of returned goods, billing, claims; transferred to Pittsburgh, 1905; returned to Philadelphia, 1907; Stock Editor and Claims Clerk, 1910; Acting Stores Manager, June, 1913.

Mr. L. R. Browne, Assistant Treasurer

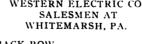
Entered W. E. Co. at Chicago, 1906; special work, Omaha, Neb., 1907; Accounting and credit work, Supply Department, Chicago, January, 1908; transferred to Philadelphia in same capacity, August, 1908; Assistant Treasurer, Philadelphia, January, 1909.



BACK ROW

HALLSTROM LIVEZEY NODELL SWAYZE FEE

FRONT ROW



GETTMAN RADER HUBBARD ELY BECKET

MIDDLE ROW

NUGENT GREENFIELD

Mr. A. L. Hallstrom, Sales Manager

Entered W. E. Co. at Chicago, 1894; clerical and general duties; special work in Michigan, 1903; Chief Storekeeper and Buyer, Kansas City branch, 1903; transferred to Philadelphia as Chief Storekeeper, August, 1904; Sales Manager,

Mr. J. D. Kennedy, Manager

Cornell University, 1898; Engineering Department, W. E. Co., New York; June 5, 1899; Head of Equipment Division, Engineering Department, Chicago, July, 1906; Engineer in Charge, Chicago, September, 1907; Manager, Philadelphia House, 1908.

W. E. Co.'s Salesmen's Outing

By G. G. Young, Buyer, Philadelphia

N Saturday, September 27, the Western Electric Company's Philadelphia salesmen held their sixth annual outing at Fortside Inn, Whitemarsh, Pa.

As precedent demanded, the sumptuous chicken-and-waffle dinner was preceded by a base-ball game between the inside and the outside men (traveling salesmen). The inside men carried off the honors, though by no comfortable margin as the score of 18-17 shows. Friendly rivalry, exciting moments and a nip-and-tuck contest were as evident this year as formerly.

The umpire, Mr. A. L. Hallstrom, received the usual "credit" due an arbiter who gives decisions without fear of having the National Commission

change them.

At the dinner in the inn's private club room, Mr. Sidney Greenfield demonstrated his qualifications as a toastmaster. Those who responded were Messrs. Hallstrom, Kennedy, Browne and Coller.

The guests included Messrs. C. S. Voorhees, Assistant General Telephone Sales Manager, W. E. Co., New York; W. A. Hubbard, N. Y. Sales Manager, American Cross-Arm Co.; J. R. Nagel, Safety Armorite Conduit Co., New York; C. Edward Fee, Sunbeam Incandescent Lamp Co., New York.; and H. F. Park, American Ever Ready Co., New York.



Mr. Crosman Tells of His Playtime

8



A Three-Pound Trout Fighting for Life

N common with so many men whose duties and labors tie them down more or less tightly to desk work and city and town atmosphere, I am a tremendous lover of the "great outdoors" and for many years it has been my custom to take my vacations in the wonderful Canadian woods. This year, with five other eager sportsmen, I participated in a trip of much interest and great charm.

We foregathered in Montreal on the twelfth of September and next morning reached a little station almost at the end of the Laurentian division of the Canadian Pacific Railroad, called Labelle, where we were met by teams which carried us some eighteen miles into the "bush" to the main club house of the Club Chapleau. Here we spent two most enjoyable days of relaxation, planning our "real trip" over the lakes which abound in that wild and picturesque country, and hardening our muscles for the heavy work over the "portages" ahead.

The "real trip" commenced when we loaded every ounce of the products of civilization we were to see for the next ten days upon two large mountain wagons-including, by the way, our four canoes-and teamed the outfit over old lumber roads through the beautiful forests into the backcountry just about as far as teams can penetrate. We brought up that afternoon, at the end of this stage of the expedition, at the edge of a beautiful lake called "Sans Nome." Here, finding ample accommodations in a friendly lumber camp, we put in our first night under blankets. morning we organized carefully so as to distribute the party and luggage to the best advantage, and from that time until we got back to the main club house, ten days later, each man furnished his own motive power.

I wish that space permitted me to try to give some idea of the joys and delights of the days that followed-sunny days, rainy days, warm days and cold days,—they were all alike to that

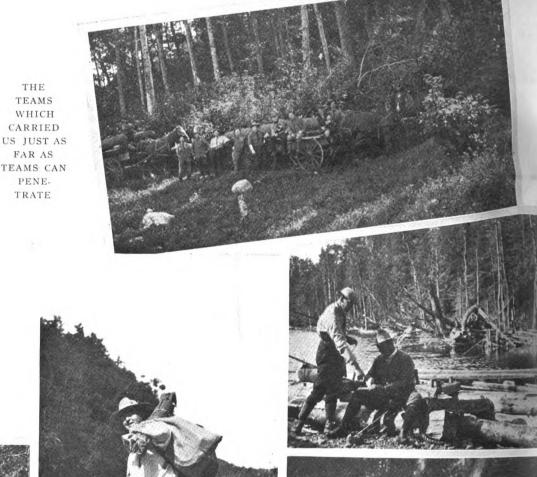
sturdy party of "voyageurs." Each one had its fill of beauties and incidents, and the trip was one long-drawn-out experience of pleasure and clean living. Sometimes it would be the gorgeous lakes we paddled over, again it would be the magnificent woods we traversed in going from one lake to the next; always there was the marvelous colorpicture of the turning foliage, the deep rich reds of the maples, the golden yellow of the beeches and birches and the steady green of the pines. Then there would be times of unspeakable excitement when we struck "big fishing." One day I took twenty-four speckled beauties that weighed sixty-two pounds, caught with a five-ounce flyrod, and not infrequently two at a time, and upon one felicitous occasion a "triple," the three trout weighing considerably better than six pounds. Then the ruffed grouse (the Canadian partridge) no words of mine can describe the merit of that lordly bird of the woods when cooked over a camp-fire at the end of a day of constant work, eaten with a sauce of healthy fatigue. The birds were very plentiful and we had all we wanted

for the simple trouble of going into the bush a: shooting them.

At a beautiful spot on a lake called "An Sucreries" we built our headquarters came From here we would make all manner of small trips, exploring the country about us and testing the fishing afforded by its lakes and stream Occasionally we would go "light" and sleep on in the forest, depending upon our hatchets and our Hudson Bay blankets to furnish us sufficient temporary shelter to make us absolutely snug and comfortable. Then the meals we cooked over bit of a fire! It would be useless to detail them for you wouldn't believe me unless you have yourself done the same thing!

Just one more joy I must not forget to men-tion. No bathtub achieved by the hands of man ever compared with the morning plung taken each day, rain or shine, in those bracing, beautiful waters of the Canadian lakes!

The little pictures accompanying this description of our trip will afford some idea of the manner and method of making it, and old hands





THE CAMP AT AUX SUCRERIES



EACH MAN FURNISHED HIS OWN MOTIVE POWER



THE UNSPEAKABLE EXCITEMENT WHEN WE STRUG OUR HATCHETS AND HUDSON BAY BLANKETS EURNISHED SUFFICIENT SHELTER

Digitized by GOOGLE



P.

at outdoor life will find their pulses beating faster as they glimpse them over; while to the others I want to say that I hope some day they will ex-

periment with this kind of a vacation and then swap lies with me about those they landed and tell me about those that got away!











R LEFT: WE COOKED OVER A BIT OF FIRE

UPPER RIGHT: BIRDS WERE PLENTIFUL IN THE

CENTER: THREE TROUT WEIGHING CONSIDERABLY BETTER THAN SIX POUNDS

RIGHT CENTER: EACH DAY HAD ITS FILL OF BEAUTIES AND INCIDENTS

LOWER: THE END OF THE DAY



Chester District

A new resident of Ridley Park who had declined to take service was quickly won over to it when, upon being visited by a tramp who had boldly forced his way into her home, she resorted to a disconnected telephone remaining in the house, faking an apparent summons for help. The vagabond quickly took to his heels and decamped. As a telephone enthusiast, that woman now declares that a telephone and ready wit will accomplish wonders.

A singular method was adopted to dispel the confusion resulting from two borough officers of Prospect Park possessing the same patronymic. A statement was given to a local newspaper informing the public of the full names, addresses and officers occupied by each citizen, and closed by announcing that one officeholder possessed a Bell telephone in his home and the other substituted the opposition company's service.

One of our salesmen inquired of a schoolboy where the principal of his school (a telephone prospect) lived. The boy quickly replied in the following manner, "She don't live nowhere; Miss—— only boards," in which response the lad revealed what some would class as a subtle discernment only excelled by the elegance of his English.

MATHEWS.

1230 Arch, Business Division

From the Walnut test table comes this echo of a "wet trouble":

Test table operator: "Your trouble is probably due to the cord of your telephone being wet."

Subscriber—evidently of foreign birth: "Yes, I guess it is. Never mind sending a man to fix it; I'm biting it off!"

It didn't take long to correct the impression that the method begun would be disastrous.

On September 27 two Filbert and three Walnut operators formed a committee representing all of the young women in the Eleventh and Filbert Streets building to thank Mr. J. C. Lynch, General Superintendent of Traffic, for the extensive improvements just completed for their comfort throughout the operating quarters.

During the first two weeks of September nearly 5000 stations over which service had been suspended during the summer were restored to the Traffic Department's load. One four-party subscriber, before leaving the city, took the precaution to avoid danger from lightning (as she thought) by removing the receiver from the hook. Fortunately the troubleman arrived in time to correct her impression.

BRADFORD.

1230 Arch, Cashiers' Division

Sometimes the geography of telephone users is not absolutely reliable or clear, as is shown by this instance reported by A. J. Griffith, a Main Line adjuster. He telephoned to one residence and asked for Mr. or Mrs.

The maid said, "They aren't at home; they are in Germany, and are going from there to Europe before returning!"

OWENS.

Some Ideas of Cable Work

By D. S. Hilborn, Cable Engineer, Philadelphia

ABLE construction work in Philadelphia and vicinity is a problem ever growing, as in all jobs where progress is being made. From the old housetop construction and "spar" poles 90 feet high used in 1897 to the present types of underground plant is a series of improvements difficult to outline. Those tall poles—not infrequently with as many as 30 crossarms and 300 wires—cost about a dollar a foot before they supported any equipment. Then with the equipment, permits and supervision added, the total cost soared most surprisingly.

It is thought that the first experiments leading to the use of cable were conducted at Attleboro, near Boston, where a five-mile trench was dug beside a railway track. "Five plows in succession were hitched to the engine and all were broken,' but they and others completed the trench and variously covered wires were "buried," as the newspapers say. In that city and in Boston, says Herbert Casson, several weeks later, the first cables for actual telephonic use were laid.

Philadelphia, however, early tackled the problem, and the first cables laid here, as described and illustrated in our April 5, 1907, issue, were somewhat novel. The wires were cotton-insulated and were not twisted in pairs as they are to-day. An end view looked rather "woolly," with bright spots where the ends of the wires projected. The outside of them was wrapped with tarred jute and tinfoil, both of which were intended to keep out moisture. Paper-wrapped, lead-encased cables were later employed, as were those in which the wires were twisted in pairs to avoid cross-talk. From this twisting method Mr. J. J. Carty's reputation as a telephone engineer made one of its early advances.

From cables of a few pairs to those present-day ones with 600 pairs (1200 wires) has meant all kinds of improvements in the art. Some companies are now trying 900-pair cables. This improvement particularly demonstrated that the ducts have remained practically the same in size. Now it is not uncommon in any of our cities to replace a 110- or 220-pair cable with one of 330, 440 or even larger capacity. It is believed that the use of odd sizes, instead of 100-, 200-, 300-, 400and 600-pair cables is peculiar to The Bell Telephone Company of Pennsylvania. It is understood, of course, that splicing becomes more complicated as the side of the cable increases, and requires almost infinitely greater patience and skill.

While some manholes, which we step over many times a day without a thought, cost more than a grand piano, the less expensive are constructed in some parts of our territory at a cost of only \$40 each. To be sure, there are exceptions on the other side of the estimate sheet. Costs of from \$75 to \$200 are not uncommon.

When dimensions are considered, the most important is length. Good cable work cannot be done in short-length manholes.

Proposed Philadelphia Work

Just at present Mr. James Cunningham, Supervisor of Construction for Philadelphia and vicinity, has on hand a cable from the Spruce central office at Seventeenth and Filbert Streets to Wayne, Pa., 14½ miles west of the city. Smaller runs are also to be made from Belmont central office at Lancaster Avenue below Fifty-second Street to Fifty-seventh and Market Streets, from Filbert central office to the Walnut Street wharf and from 36 West Chelten Avenue, Germantown, to Hortter and Greene Streets. Philadelphia's June 30 figures show approxi-

mately 5,775,840 linear feet of exchange underground cable containing 381,745 single miles of wire. As of the same date there are 169,950 linear feet of toll underground cable containing 8675 single miles of wire. There are also 11,771 exchange and 191 toll service manholes, in each of which the pulling-in process, splicing and testing are part of the cableman's job. Over 558 miles of streets are occupied by our cables—a substantial basis for proving our wires underground when the total plant in the city is under consideration.

cable and under certain conditions, three different kinds of tests are required, viz., cross-talk tests capacity unbalance tests and insulation resistance tests. Under ordinary circumstances the differ. ent types of tests must be made by the same man throughout a single cable, necessitating a much longer time than that possible through dividing the work among a group of testers. While this may not be the practice in all cities, in Philadel. phia it has worked out with better results when the same man has been allowed to complete a single cable.



PULLING CABLE IN GERMANTOWN, PHILADELPHIA, WITH THE COMPANY'S SPECIALLY EQUIPPED NEW TRUCK DESCRIBED BELOW

Cable-Pulling

Those who are unfamiliar with the method used in getting a cable into its more or less permanent resting-place, may compare their experiences with those of "fishing" a bell wire through a partition or running a cord or ribbon through a hem. In one case a piece of metal attached to a stout cord may be dropped from above-if the "run" is vertical—and in the other a tape-needle (needle without a sharp point) is used. In cable running the "needle" is a series of short rods with ends so provided with sockets that they fit each other, thus becoming sections in a long rod that reaches from one manhole to the next. A rope is fastened to the last joint and by means of the rod is drawn through to the neighboring manhole. The cable is securely tied to this rope and the pulling is ready. In the meantime the sectional rod is pushed through to the next manhole in preparation for pulling in the next section of cable.

Cable-pulling, that was formerly done by men or a horse walking around a "house-moving winch," is now done by means of motor power.

Further Details

Splicing and testing is a part of the work that receives perhaps less than its proportion of appreciation when the accuracy and patience required are considered. With certain kinds of

Motor Trucks

Some years ago a three-ton truck was obtained and equipped with a winch operated by the motor of the truck. This truck was used for heavy hauling and pulling cable. Later a new three-ton truck, similarly equipped, was purchased. In order to reduce the cost of pulling cable, successful experiemnts were made of pulling two sections of cable at one time. Pulls of this kind were made by horsepower (using a special capstan) and also with the motor truck. Profiting by the experience gained in making "double pulls," a double winch was specified as part of the equipment of the five-ton truck recently acquired. This winch has two drums mounted just in the rear of the chauffeur's seat and so designed that they encroach but little on the floor space of the truck The truck motor furnishes the power to move the drums, which may be operated separately or together as desired. The levers controlling their operation are within easy reach of the chauffeur's seat. The great capacity of this truck for hauling and its special equipment for pulling called has enabled the Cable Division, under fair conditions, to haul and pull in about fifty per cent. more cable than with the largest of our previously owned trucks.



THE TELEPHONE NEWS

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania The Central District Telephone Company The Delaware & Atlantic Telegraph & Telephone Co. The Diamond State Telephone Company

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SUBSCRIPTION PRICE:

Vol. IX OCTOBER 15, 1913 No. 20

How Our Obligation Differs

TIME—an Indian Summer morn.
Place—a suburban town.
Characters—the iceman and the public.

First member of the public, calling by telephone: "You've not yet delivered our ice. When may we expect it?"

The iceman: "Freight train delayed; no ice to deliver; hope to help you out before noontime."

Ten minutes elapse. Then a second member of the public calls and asks the same question and receives the same answer.

Soon a third and fourth and fifth and sixth call is received, followed by a score or more, and the iceman begins to lose patience. His answers become shorter and shorter and finally degenerate into, "Don't know and don't care."

Now the above actually happened; and just here it might be well to explain that the villain of the plot was an iceman only by convenience. His real business was selling coal, and in the summer months, to keep his teams and men busy, he catered to the ice trade as a side line. What, thought he, if he did lose his ice trade? What if he did play into the hands of his competitors? There wasn't much profit in it, anyway, and he'd make it up when the coal season came round.

Your first thought is, probably, as to whether or not he won't later lose some of his coal trade too. And very likely he will; but that is not the point. Ninety-nine out of a hundred business men can, if they choose, display this same disregard of the privileges and feelings of their customers, for surely the public can deal where it chooses; and if the service of your butcher or grocer, coalman or clothier is not satisfactory, you can buy to just as good advantage elsewhere.

But stop to think how our obligation—the obligation to furnish an adequate tele-

phone service—differs. There's just one universal service,—ours. The public cannot go elsewhere for the "goods" we handle. They, our patrons, are dependent on us alone; we, the Company, are dependent on the public alone,—and there is but one public, mind you!

This leads up to no catechism of whatto-do or how-to-do-it in our personal contact with the public; the right and wrong is clear as day to every man and woman of us. But lest someone may fail to appreciate fully how our obligation—the obligation of Bell Telephone service—differs from that of practically every other business service of the period, the story is told.

If you and I remember that our sole dependence is on the public, and the public's real telephone dependence is solely on us, your service and my service to the public will be maintained at the top notch. Our partnership with the public cannot be dissolved, nor can our partner, the public, become estranged. This much the business itself demands—demands of you and of me.

Hello Yourself!

WOULDN'T it be funny, if it weren't an absolute waste of time, when you call and get the old-time and hackneyed "Hello!" to respond "Hello yourself!" Of course, the caller would avoid saying anything further, and the called person would be under obligation to take the treatment good-naturedly and give his or her name.

What do you think about it? How many times have you used the term to-day? Why not censor your own telephone replies if you are among the guilty ones? Or if you know of any who stick to the old method, perhaps it might be well to call attention to this memorandum.

Conquering the Mind First

E all of us know persons who are inclined to take life easy and be satisfied with the earnings of a living wage, because that mode of life does not necessitate any over-exertion on their part. This spirit exists both on account of lack of ambition and lack of self-confidence. One should try to foster in his mind the conviction that he can do big things, and not imagine that he cannot do the difficult things of life or occupy the responsible positions of the business world.

If a person can convince himself that he can do things, he not only creates the desire to do these same things, but he tends to create the ability necessary for their performance.

The state of mind of the individual, then, is of prime importance, and an optimistic, confident frame of mind is indispensable to sound success in life.

A Good Beginning, but-

THE installer had completed his work at the home of a resident, new in that place, and had made a neat job of it. The subscriber's wife was pleased with his speed, with the little amount of confusion caused, and with the whole treatment thus far received from the Company.

The finishing touches were made just as quitting-time came. Then, contrary to the Company's ruling, the employee asked the new patron if he might leave his tools in the house until the next morning.

In this case there was only one objection that occurred to the householder. She happened to think that he might return at an inconvenient time or at a time when she might be out.

"What time will you call for them?" she inquired.

"Seven o'clock," he replied.

"I'm doubtful that we'll be up so early, so you had better put the bag of tools in the cold-storage closet on the back porch."

"No, I won't do that," said the installer.
"They might be stolen. You know the Company soaks us with twice the cost of them if we lose any!" was his last appeal.

"How far would you have to go to take them to the office or your home to-night?"

"Oh, three squares or so!" said the worker. "I guess I'll lug them along, after all."

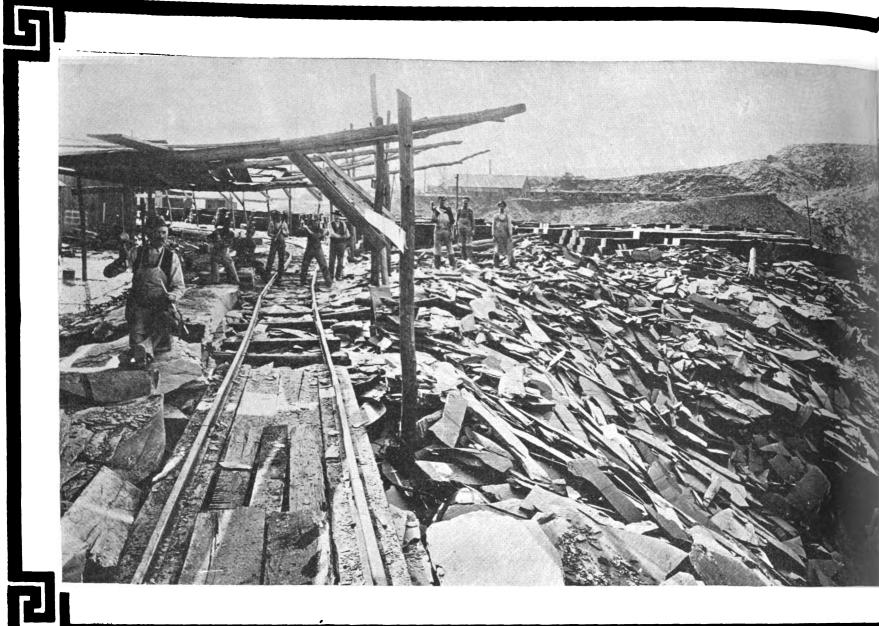
Thus to save a short walk, the installer, who had made so favorable an impression in every other particular, was thoughtless enough to inconvenience the new patron and, at a pinch, to leave a very wrong impression about the Company that employed him. As the custodian of a few tools, it is only fair that he should replace any that he misplaced or lost. The loss, however, would be only the actual cost price at wholesale rates which the Company would have to pay.

It was brought out clearly, at one of our first-of-the-season telephone society meetings the other night, that no cogs in the wheels—especially those put there by us—should be permitted to go unnoticed. This instance of "sand," put there at a time when there was absolutely no occasion for it, is an excellent example of negative advertising that hinders the progress of all concerned.

gress of an concerned.







THE PRODUCTION OF ROOFING SLATE. THE FINISHED "SLATES" MAY BE SEEN BEYOND

The Pennsylvania Slate Belt

(Continued from Page 4)

tomers in New York, Rochester, Pittsburgh, Cleveland, and even as far as Chicago. A sales manager of a slate company—in a county riddled with slate holes—who considered the telephone a luxury would find his plant soon packed full of material other than that belonging on the dump

This total output may sound large, but there is no reason, according to many Slate Belt men, why these figures should not be increased, and with that end in view some of the quarrymen have gotten together for an educational campaign. They are now endeavoring to inform the public not only as to the value of slate for roofing, but also of its adaptability for structural purposes. It might be added, they frankly admit that in this connection they have a parallel with the eminent authority from Kentucky who declared, "All whiskey is good whiskey—only some is better than others."

Most of the quarries lie in what is known as the "soft-vein" belt, and the quarrymen have to contend with their share of "ribbons," common to all slate. These are narrow beds of hard grit which occur at intervals of from three to ten feet. The value of commercial slate depends largely on the spacing of these ribbons. How-

ever, it has been proved that when slate is broken, the fracture almost invariably occurs across the ribbon.

The "hard vein" slate occurs in a belt west of Nazareth. It is comparatively limited in extent, the principal quarries being at Chapman. Here the ribbons are spaced more closely than those of the soft vein, and while the slate was formerly used largely for flagging, steps and posts, it is now used only for roofing, for which only selected material is available.

Waste Slate

That last clause brings up the all-important question of what to do with the dump-pile. A prominent manufacturer set forth this point most forcibly when he said that "the most valuable asset of a successful plant is the scrap-heap, for it contains living exemplifications of how not to do things." While many reasons have been set forth for the lack of a more rapid increase in the slate trade, the first reason advanced is generally that the quarrymen are more and more hampered by the ever increasing quantity of waste slate. This waste amounts to over three-fourths of the material quarried and forms huge mounds of scrap lying in the path of future development.

It is true that this waste slate has been discussed considerably and experiments intended to discover its field of usefulness have been made,

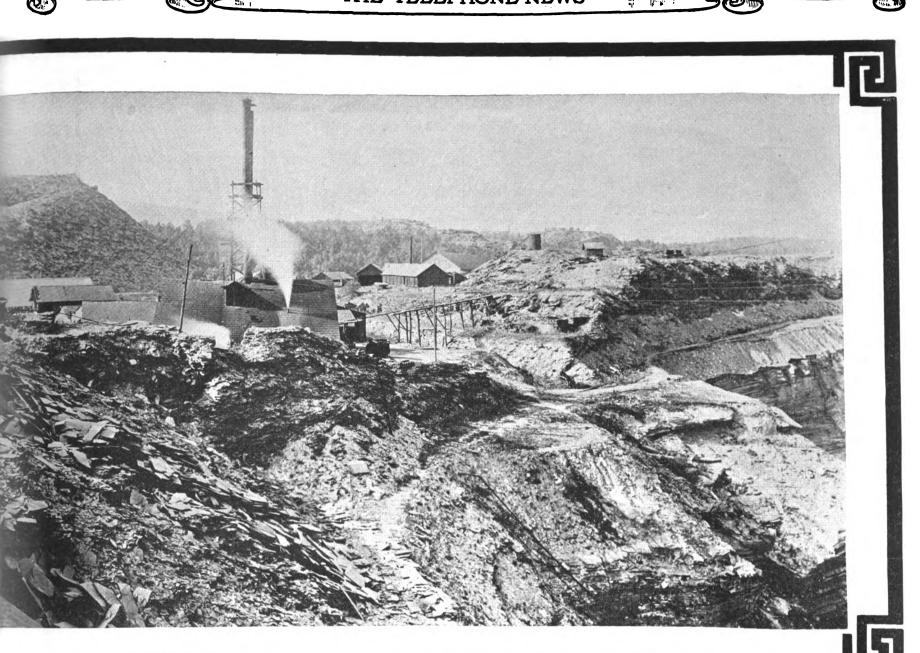
but so far no satisfactory remedy has been found. Some have tried putting it on roads, but the fine dust into which slate crushes is objectionable, as anyone who has walked along the roads among the quarries knows. Perhaps the best suggestion to date is that more millstock be turned out. As one means to curtail the quantity of waste slate and to find use for it, many quarrymen are introducing more machinery. The peculiar bedding and cleavage in slate makes the opening and operation of a slate quarry anything but an easy proposition and it has been necessary to have special channeling and drilling machines designed.

Telephone Development

While the slate industry has remained constant, or at best has increased but little, in the past five or ten years, the local telephone has not followed its example. The first telephone company was organized some seventeen years ago, and while it gave Slate Belt inhabitants an inkling of what they had been missing, it was hardly one of the "point with pride" kind of success. However, when towns are shut off from the rest of the world without passenger-train service, any means of communication is gladly received.

Thus telephonic matters continued uneventfully for a decade, until a time came when definite action was necessary. Thus in 1907 a new man-

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DISCARDED SCRAPS. THREE FOURTHS OF THE TOTAL AMOUNT OUARRIED IS WASTE

agement together with complete reorganization took place and the present Slate Belt Telephone and Telegraph Company with its Bell connections has superseded two former telephone companies. This remade company had from the very start the support, both financially and otherwise, of the men who were responsible for much of the development of their respective towns and villages in the Slate Belt. The fact that to-day the directors of this connecting company are such men as Dr. J. C. Keller of Wind Gap, Dr. E. S. Rosenberry of Stone Church, E. A. Speer of Pen Argyl, E. G. Markley of Bangor, Wm. V. Knauss of Bethlehem and M. T. Swartz and A. G. Connolly of Nazareth is a "plate-glass show window" of the company's caliber.

Oct. 15

Of the utmost importance was the placing of matters into the hands of experienced telephone men, as a result of the reorganization. The effect of this was soon made manifest in a greatly improved service. Changes were made not only at the Company's general office at Nazareth, but fairly distributed throughout all five exchange districts. These widespread improvements, however, cannot alone be held responsible for the jump in the number of stations from 529 in 1907 to 1027 to-day. Of course, skillful and efficient employees had much to do with this remarkable development of 100 per cent. in five years. But in the language of the much-heralded investigating committee's "getting after the man higher up," we find A. G. Connolly—a big man, any way you care to look at him. He has given a great amount of time and energy toward making his company one of the greatest public service organizations in the Slate Belt; and for reference as to his accomplishments we can safely refer you to any Slate Belt subscriber.

In looking over the statistics in Mr. Connolly's office, one would think that things had voluntarily rolled merrily along, but unfortunately Utopia is not located in either Lehigh or Northampton Counties. It would be discouraging to some of us, after we had just finished five years of steady work in bringing Bangor from 213 stations into the "four hundred class," to have a big fire in the town cause havoc with most of the equipment. But this didn't iron out any of "A. G.'s" jovial wrinkles, for he has "Bill" Haskey to depend upon to remedy any plant trouble that can be cured.

However, this \$120,000 plant is far from being a one-man concern, and probably every single employee of the Slate Belt T. and T. Co. is in some way responsible for the necessity of doubling the toll lines during the past two years. In conclusion, let it be said that this organization is a credit to a region that is leading the country in an important industry; and such a standing as this is hard to surpass.

A Difficult Telegraph Code

American telegraphers have reason to be thankful that there are only twenty-six letters in the English alphabet, with their corresponding telegraphic characters to memorize. In the Chinese language there are about 40,000 characters, but, fortunately for Chinese operators, they are not required to memorize so many. It is only the highly educated persons that utilize them, the fairly literate classes not using over 7000. Even this number is prohibitory in a telegraphic sense, and the problem has been to fit the Chinese language to a telegraphic code.

One of the difficulties met with is the fact that many of the monosyllables of the Chinese language have entirely different meanings, according to the way they are uttered. Thus, for instance, the word for "girl" may mean "chair" when spoken in a shriller tone of voice.

The Morse code, of course, cannot meet such conditions, but Professor Schellerup, a Dane, has found a solution to the problem. The 7000 characters most commonly used are given their equivalents in a code of numerals, and these numerals are telegraphed. Thus, "cash" in the code is 6030. If any one wanted to telegraph the number 6030 itself, he would send the code equivalents of the words "six," "thousand" "thirty."—Telegraph and Telephone Age.





Some Phases of Long Distance Work

(Continued from Page 1)

Philadelphia line, on which the first pole was set August 20, 1885. This line was completed in April, 1886, but we were able to send the first message through at 2:15 P.M. on December 31, 1885.

The next lines constructed were the New York-Boston and the New York-Chicago lines, the line to Boston being completed in June, 1888, and the line to Chicago in February, 1893.

Our first contract for service was made with the Western Electric Company on January 1, 1887, and provided for a direct connection with our long-distance switchboard in New York from their office at 70 Trinity Place, New York. They guaranteed to use 600 long-distance messages a year.

The first severe test to which our plant was put was the memorable blizzard of March 12, 1888. The severe snow and wind interrupted all direct telegraphic and railroad communication, and for some days most of the newspapers received Boston news by way of London. The New York World, however, took early advantage of the long-distance telephone line to Boston, and the rapidity with which the line was repaired and service restored is best told by an editorial of that newspaper dated April 4, 1888:

The statement made by an irresponsible newspaper in this city, to the effect that the long-distance telephone between New York and Boston was interrupted entirely during the celebrated March blizzard, is incorrect. The wire was broken somewhere in the city, but on Wednesday, March 14, a detachment from the World office, equipped with instruments, went up to Kingsbridge and, after making a connection, talked direct with Boston. The news received in this way (and not by the way of London) was published in the World on the following morning. On Thursday, the 15th ult., the central office in this city reached Boston over the long-distance wire. It is a matter of history that on the very day on which one of our neighbors was boasting of its Boston news by way of London, the World printed a long-distance telephone message from Boston. These are the facts.'

This was the first evidence the public had of the dependability and reliability of the long-distance service.

The Long Distance Lines Department

The Long Distance Lines Department is now a special department of the A. T. & T. Company responsible for the operation of the long-distance telephone lines. This department is organized along the identical lines that your Company is organized. At the head of the whole organization we have Vice-President Kingsbury, who reports to the Senior Vice-President of the Company. Reporting to the Vice-President we have a General Superintendent and an Auditor. General Superintendent corresponds to your General Manager, and has reporting directly to him a General Commercial Superintendent, General Superintendent of Plant, and General Superintendent of Traffic. The Auditor corresponds to your General Auditor, and has reporting to him an Auditor of Disbursements, Auditor of Receipts, and Chief Traveling Auditor. We have our own legal and financial departments and a secretary who serves both the General Department and the Long Distance Lines Department.

Classes of Service

I suppose most of you think of the long-dis-

tance service as a message service only. True it is that the message service is the principal class that we furnish, but we have five other kinds of service.

Message Traffic

In the beginning of the business we had only the experimental line between New York and Boston. To-day we reach 70,000 cities, towns and hamlets and connect with 7,500,000 telephones.

Last year we handled 11,286,400 completed messages, or 36,363 each business day. In 1890 we had 104 check direct offices, all of which we reached over our own lines. To-day we have 5828 check direct offices, 585 of which are connected directly with our lines, the other 5243 offices being reached over the lines of the Associated Companies. In 1892 we required and had only 8 positions to handle the entire traffic, both originating and terminating at New York. On January 1 of next year we will cut over our new equipment in the Walker-Lispenard Building, and will then have 250 operators' positions.

It may interest you to know that the average haul of an American Telephone & Telegraph Company's message is about 133 miles, the average toll about \$1.03, and the average message circuit about \$15,000. The maximum commercial haul for the Long Distance lines is about 2200 miles, the rate is \$11 for three minutes, and the value of the plant involved in such a connection is almost half a million dollars. Our longest single circuit haul is from New York to Chicago, where we have 3 circuits, 940 miles each, worth a little over half a million dollars. Our longest open-wire circuit group is from New York to Boston, where there are 39 circuits, 240 miles each, worth about \$1,150,000. Early in the fall we will have completed certain cable work by which it will be possible to talk from Boston to Washington underground, a distance of over 500 miles.

When you consider the importance of the long-distance traffic, the value of the plant involved in each connection, the average haul and the average price of each connection, you will readily understand that our Traffic Department has a tremendous responsibility. To handle the long-distance traffic efficiently we have a group of specialists in our Traffic Department who have more than met the responsibility placed upon them.

The toll operating rules evolved by our Traffic Department have been adopted by practically every Associated Company. Of course all of the Associated Companies maintain schools for operators, but our Traffic Department, I believe, has the distinction of having the only school for instructors, such a school being maintained at Chicago.

The fastest service we give is the one-minute, two-number service between New York and Philadelphia, while our service for the entire plant averages about 5.5 minutes from the time of the filing of the call until the start of conversation.

Various methods have been evolved from time to time to improve the service and the circuit efficiency. We have complete specialized supervision over every branch of the service, and in spite of the difficult traffic that the Long Lines Department has to handle, its toll circuit efficiency exceeds the average of the Associated Companies by twenty per cent.

For the purpose of handling the plant lay-out and for planning additions thereto, we have a specialized force of ten trained men and a large number of clerks. To handle fluctuations in the business, either seasonal or otherwise, we make about 2000 changes in circuit lay-outs a year, some of them involving extensive sections of the plant. It may also be interesting to know that we make about 140,000 route changes a year and have a specialized force for routing work.

Full Talking Service

Full talking service consists of the full use for 600 minutes or more daily of a telephone circuit between any two cities. When desired this class of service provides for the termination of one end of the circuit before an operator in the office of the operating station instead of in an office of the patron. Such a contract permits the patron to call for any telephone subscriber within the local exchange area at the distant point. Under this arrangement a subscriber in New York having a full talking circuit to Harrisburg may have an exchange connection in Harrisburg direct from his telephone in New York without going through the long-distance board in New York. thereby being able to call for any subscriber within the Harrisburg exchange area and, conversely, permitting any subscriber within the Harrisburg exchange area to call for a connection with his full talking circuit without paying more than the local exchange rate. The first contract for this class of service was made on January 15, 1887, with L. H. Taylor & Company between their office in Philadelphia and the Long Distance operating office in New York. Full talking service without the exchange operating feature is used by railroads, bankers and large mercantile houses. One of the oldest contracts for this class of service is with the Pennsylvania Railroad, and provides for a circuit from Jersey City, N. J., to Pittsburgh, Pa. This circuit is cut in at Philadelphia, Harrisburg and Altoona. The Lehigh Valley and the New York, New Haven & Hartford Railroads are also old customers, and recently a contract was closed with the New York Central lines for a circuit between New York and Buffalo, cut in at Albany and Syracuse.

Half Talking Service

Half talking service provides for full use of a telephone circuit between two cities for 300 minutes' use daily. This is used principally by manufacturing concerns for service between their offices, salesrooms and factories. The Pressed Steel Car Company have the largest contract for this class of service, it being a circuit between New York and Pittsburgh.

Short-Period Talking Service

Short-period talking service provides for the full use of a telephone circuit other than that provided for by full or half talking service. Any period or number of periods of time computed in multiples of five minutes, with a minimum of ten minutes, may be taken between the hours of 8 A.M. and 6 P.M., except that this service is not furnished between the hours of 10 A.M. and 12 M. unless used in conjunction with certain other periods. Between 6 P.M. and 8 A.M. any period or number of periods of time may be taken computed in multiples of thirty minutes.

The first contract for this service was made with Ostenheimer Brothers on September 1. 1887, and provided for a message of one tenminute period between New York and Philadelphia. Users of this service include practically all industries. Press associations have adopted it for sending news reports in the late night and early morning hours. As evidence of the popularity of this form of service we have so far not received a single cancellation due to dissatisfaction.

Furthermore, it has been our experience that as



a rule a patron's use of this service has not decreased his use of the message service, but, on the contrary, has increased it. The use of the telephone becomes more of a habit, and the more a man uses it, the more use he can find for it. Also, a subscriber takes pride in his private wire and is a consistent promoter of the telephone company among his friends and business associates.

Morse Service

Morse service provides for the full use of a telephone circuit for one-half the period covered by the contract, and at the option of the patron full use of a telegraph circuit is permitted for the full period covered by the contract. Banks, packing houses, newspapers and brokers are big users of this kind of service, and the continuity and reliability of our Morse service is so generally appreciated that we are handling more than half of all the Morse service furnished by the wire companies. The big press associations of the country are valuable patrons of this class of service, and as an example of their satisfaction with it we have recently extended the New York-Kansas City wire of one of the press associations to the Pacific Coast.

It was our Morse service which was particularly appreciated during the recent disastrous floods in Ohio and the serious cyclone at Omaha which preceded the floods. Although most of our plant was destroyed, during the entire time we were in a position to furnish sufficient service to meet the public necessities. We first of all provided all the facilities required by the state and federal authorities and the Red Cross Relief organization. Then, realizing the great public demand for news of the disaster and for information about persons involved in it, the American Telephone & Telegraph Company felt that it had an opportunity to perform a public duty, and it offered its facilities to all of the great press associations of the country, irrespective of whether or not they had contracts with us. The splendid work of our employees and the reliability of our service as demonstrated during the time of the floods have greatly increased our press association service.

Public News Telephone Service

Public news telephone service is furnished to the press only and provides for the use of telephone circuits during stipulated periods between specific points at each of which terminal facilities are furnished. By means of this service press associations distribute news reports to newspapers in the smaller cities and towns that do not take a full telegraph report. Starting in 1909 with one press association and a few newspapers, this service has grown to such an extent that it is now used by all of the large press associations, who together distribute news to 215 newspapers situated in the territory bounded by the Atlantic Ocean on the east, the Gulf on the south, Denver on the west and the Great Lakes on the north. It is having a rapid development and new clients are being added daily by the various press associations.

The Plant Department

Herbert Laws Webb, in the Electrical Engineer of May 4, 1892, discussing the long-distance work, said:

"From the first the Long Distance Company has set itself a high standard of line construction. It was determined at the outset that nothing should be left undone in this direction to obtain the best results that good material and first-class workmanship and supervision could give.'

What Mr. Webb said about our construction work is equally true of our maintenance. Undoubtedly one of the important causes of the material increase in our leased wire service is the untiring efforts of our Plant Department in maintaining the service and keeping it free from interruption. During the year 1912 we averaged 112 cases of trouble (including storm and fire damage) a day. This means that we had 7 cases per month per 100 miles of wire.

One very important branch of our Plant Department is the Plant Record Bureau. sult of having this thoroughly established and complete bureau we are in a position to do all the engineering in connection with the phantoming and the loading of circuits without any field inspection whatsoever. A particularly good example of the use of this bureau was had when it was determined to build the New York-Den-Without making a field inspection we were able to determine all the factors in connection with the balancing of circuits, the location of load coils, and the placing of the new type of porcelain insulator. We were also able to determine the actual poles on which transpositions should be made and the type of transposition to be used.

The total pole-line mileage of the long-distance plant is 26,369, while the total open-wire mileage is 424,608, or about 16 miles of wire for each mile of pole line. Our first phantom circuit was created on the New York-Boston Shore Line between Boston and Providence, and was put in service March 9, 1904. The first loading was done with the Pupin coils on three No. 8 circuits on the New York-Chicago line on November 3, 1907. The first underground subway was completed on July 18, 1906, between New York and New Haven. Subways are now in operation between New York and Philadelphia, Boston and Providence, Chicago and Milwaukee, and Philadelphia and Washington.

Right here I want to express our appreciation of the splendid cooperation we have received from the Associated Companies. You must remember that practically every long-distance message and nearly all of the leased wire service is handled partly in the plant of one or more of the Associated Companies, and you can readily see the hopelessness of the service without proper coöperation between the various Associated Companies and the men of the Long Distance Lines Department.

The Accounting Department

Our disbursement accounting is built along the lines which are used in your Company. I will not go into the details of this, because we have preached our doctrine of administrative accounting to you for a period of four years.

Our Revenue Accounting Department, however, has to meet a series of conditions absolutely different from the revenue accounting of your or any other Associated Company, and we find that a very complex situation is handled in a very simple manner. To begin with, you deal with individual subscribers for revenue earned over your own plant and within your own territory. We deal with telephone companies for revenue earned over our plant and theirs, and in the territories of the different Associated Companies scattered throughout the entire United States. Of course we have a couple of thousand patrons who subscribe for our leased line, shortperiod and press service, but our message settlements are made with the Associated Companies.

The toll tickets for long-distance messages, whether handled by our operators or yours, are

sent each day to the Revenue Accounting Department of the Associated Company.

Monthly Reports

Prior to 1895 daily itemized reports of all messages were required from each "check direct" office. Since that date a monthly report has been used; this report, known as T-55, is furnished by each "check direct" office and gives in total, for the "Outward," the number of messages, the minutes, "This Line," "Other Line" and messenger charges; for the "Inward" business, the number of messages and the messenger charge. We receive over 5000 of these reports each month, and the business reported on them is with more than 60,000 offices.

Originating Commission

Each Associated Company receives a commission on all revenue messages originating at its stations. This commission covers the local operating expense, revenue accounting, canvassing and collection expense, and is fixed at a certain percentage of the revenue with a maximum amount per message.

Until November, 1895, the commission was figured monthly in detail on the actual messages concerned. Since that time the adjustment has been made on the basis of an average rate per message, which is determined by actually computing the commission for one month and dividing by the gross messages for the same month. This figure is usually revised annually, or oftener if circumstances require. You will appreciate the necessity for using an average of this sort when you remember that we handle about 1,000,000 messages per month.

Toll Pro-Rate

Originally we made toll rates only between points on our own lines. The charge from such a point to a point reached only by an Associated Company's lines was made by the Associated Company and quoted separately as the "Other Line" charge. The settlement then was an actual division of revenue between "This Line" Other Line" charges.

About 1894 it was arranged that all long-distance rates be made by the American Telephone & Telegraph Company, and that the Associated Company's share of the revenue should be based on the proportion of the mileage which they furnished

In determining the pro-rate, the average rate per mile per minute for long-distance traffic is applied to the mileage from the Associated Company's station to the point connecting with our lines. This may be either railroad or pole-line mileage, according to the particular company arrangement. With your Company the average railroad distance is used.

As a matter of convenience several Associated Companies' toll stations are considered as a group and the average distance from any point in the group to the American Telephone & Telegraph Company's connecting station is used as the mileage for any point in the group. For convenience in figuring the pro-rates, the rate per minute is secured for each group. For example, in determining the pro-rate applicable to Harrisburg Suburban, a pro-rate group in the Harrisburg Division, we found that the average mileage to the connecting point with the American Telephone & Telegraph Company's lines at Harrisburg, from the 21 points making up the group, was 4 miles.

At the present time the standard message rate is 6 mills per mile for 3 minutes—that is, 2 mills per mile per minute. Applying the standard

Some Phases of Long Distance Work

(Continued from Page 15)

rate of 2 mills to the average mileage of the group, the pro-rate applicable to the Harrisburg Suburban is 8 mills. This amount multiplied by the number of minutes these circuits are used for long-distance messages gives your share of the revenue for the use of your plant.

Check Errors

The term "check error" is used by us to indicate the investigation which is made of discrepancies between reports of business shown by outward and inward offices. Originally the "check error" investigation had a very wide scope and was the subject of a good deal of criticism, some of which was no doubt merited. We must remember that we sell toll service and that a correct record of such sales must be recorded on our monthly reports. It is just as important that these monthly reports be checked as it is that an audit be made of working advance funds or a check made of material used, or as important as any of the other various auditing features of the telephone business. It has been suggested at times that the percentage of error on messages is so low that the "check error" investiga-tion is an unnecessary expense. We are glad to say that the number of messages which require investigation is small, but at the same time our records show that the results of the "check error" investigation bring to our Company and to the Associated Companies an amount of money in excess of the expense involved.

When we consider the average value of the long-distance message, the wide distribution of the traffic, involving settlements with all of the Associated Companies, and the methods required to account properly for these messages, and at the same time make the proper settlement for originating commissions and pro-rates, we will appreciate the task that our Revenue Accounting Department has before it. This task has been successfully met, and it is only fair to make some mention here of the far-reaching economies that have been effected both in the methods employed in the department and in the methods used by and the reports required from the Associated Companies. Beginning with the elimination of the daily report, the discontinuance of inward timing, down to the installation of the direct correspondence routine, there have been labor-saving, timesaving and money-saving methods introduced which are too numerous to mention here. It is sufficient to say that this department is constantly on the alert for new and better ways of handling its end of the business.



Erie District

Traffic Supervisor Page has received a letter from the Managing Editor of the Erie Evening Herald complimenting the Traffic Department very highly for speed in answering and for general courtesy in handling calls.

At Albion, Pa., the telephone growth is making rapid progress. A new switchboard has been installed, 79 stations have been or are now being placed, and service from the new equipment is scheduled for October 25. Between that place and Erie a new toll circuit has also been strung.

IN THE CENTER IS OUR ENGINEER ON THE CAP CHAT RIVER, GASPÉ PENINSULA, SOUTH SIDE OF GULF OF ST. LAW-RENCE, CANADA, WITH TWO OF FIVE SALMON "KILLED" IN ONE DAY. THE FISH WEIGHED 26 AND 18 POUNDS RESPECT-IVELY



The Erie Traffic District has been expanded to include Crawford, Venango and Forest Coun-

The Erie-Garland Junction toll line is nearly completed. This work meant the setting of over 2000 poles and the stringing of over 55 miles of SCHAUBLE.

Pittsburgh District

One of the city's large distributors of motor cars advertised a type of truck by an illustration of it and one of a telephone. Under them was this wording: "The Proof of Actual Service. The telephone is the ideal carrier of the order. truck is the ideal carrier of the goods. Both are simple, reliable, prompt, efficient. Actual service has proved this for thousands of merchants.'

At Perrysville, Allegheny County, Pa., a new central office has been opened and 70 subscribers will be served at once.

Uniontown District

The combination of the smaller telephone directories, effected in the latest issues of several books in this district, has met with approval from both the newspapers and from the business houses. The Monongahela Valley, Washington and Greene, and Fayette Counties books have been combined, and also the Clarksburg-Fairmont, Morgantown and Parkersburg-Marietta books.

Work has been started on the construction of a new cable between Charleroi and Monongahela, completion of which is expected by December 1.

A wealthy stove foundry owner had often refused to sign for telephone service, but when he died a short time ago our Commercial representative interviewed the son and daughter, who succeeded to the business, and, after a lengthy argument, obtained the signed application.

Within a brief time four P.B.X. applications have been obtained in this district. Aggregating 10 trunks and 30 stations, they were obtained by Messrs. Simpson at Connellsville, Mansfield at Fairmont and Reisinger at Uniontown.

MISS HEPPLEWHITE.

Wheeling District

At Williamstown, W. Va., the traction company pole line parallels ours. They have provided a circuit of 550 volts for moving their street-cars. A private telephone line of the railway company, also attached to these poles, was being repaired, when cars passing along the street caused a vibration which threw the telephone wire across their feeder, then over to our wires. Our messenger wire was burned and trouble spread in a 50-pair cable for about 600 feet. Eighty telephones were at once out of service, but cable for repairs was shipped from Clarksburg and service was interrupted for only a brief

Applications for P.B.X. service along the Government dam in the Ohio River have been obtained by our Commercial representatives from time to time until there are now thirteen of these installations. The twelfth application for five stations at Marietta, Ohio, and the thirteenth for the same number at Sistersville, W. Va., were obtained by Local Agent Collins and Local Manager Williamson respectively.

A large department store of East Liverpool, Ohio, originally practiced mailing invitations to its millinery openings, using customers' names. Expensive cards, envelopes and stamps were This year it was decided that a large number of invitations finding their way to the wastebasket was objectionable and a personal invitation agreed to be most appealing.

Arrangements were made with our office for

a continued session at the telephone; a Bell telephone directory was used for assembling names and an afternoon was spent calling.

A record kept of the number of visitors responding showed a total of 90 per cent, of the number of persons called. A member of the firm was much gratified with results and called Miss Root, Chief Operator, to express thanks for the part the Telephone Company had played in the plan. He also asked that she express his appreciation to the operators who had helped to handle the calls.

MISS DIEHL.







Newville Central Office Quarters, Second Floor

Newville, Pa., Fire Particulars

The town of Newville, lying along the Cumberland Valley Railroad midway between Carlisle and Shippensburg, was the scene of a most disastrous fire on Thursday afternoon, August 28.

The fire originated in a stable in the business section of the town and rapidly spread, completely destroying the Ott Building Annex, the Miller Implement Store, and eleven stables. Many of the business houses were threatened and in many instances scorched or flooded by water. The local fire-fighters, unable to combat the flames, asked aid from Carlisle. Immediate response was made by the Union Fire Company of Carlisle, using their new motor fire-truck. The run from Carlisle to Newville, a distance of twelve miles, was made in nineteen minutes.

The building in which our central office is located was in immediate danger. Through the efforts of Plant Chief G. R. Keim, who is an active member of the Union Fire Company, the hose was played on our office building when it was realized that certain other near-by buildings were beyond saving. The operators, Misses Martha Housholder and Margaret Bower, whose pictures were reproduced in the September 15 issue of our paper, remained at the switchboard while

the fire was raging although told that they were in actual danger. With their records for service, however, they stuck to the post and kept the switchboard in service. Miss Bessie Lindsay, Chief Operator, W. C. Line, Central Office man, and D. C. Wolf, Lineman, from the Carlisle central office, rushed to Newville in an automobile and immediately relieved the Newville forces.

Later flames were discovered under the roof in the loft directly above our quarters. The flames were fought by Lineman John Dysert, and the attention of our employees directed to saving equipment from water which was now coming through the ceiling. The switchboard was covered by a large piece of awning and the main frame was protected by rubber blankets. One of our trunks was connected to the Western Union office and the switchboard was out of service for three-quarters of an hour. In addition to the time it was impossible to operate the switchboard there were nine lines, affecting thirty-five subscribers, out of service due to immediate damage by fire outside. These telephones were all in service again within fifteen hours.

A Bicycle Outing

WO of our messengers, Walter S. Hine, Traffic Department, Philadelphia, and George W. Warner, Publicity Department, decided Saturday, September 13, to "bike it" from Philadelphia to Clayton, Del.—a distance of 65½ miles each way. They planned to go that evening and to return the next day so that they could be on duty as usual on Monday inasmuch as both had had their vacations.

With no repair kit—not even a piece of tiretape—a single oil bicycle lamp for both wheels, and only \$1.05 for their combined finances, they started (boy-fashion) from Fifty-second and Market Streets at 11 P.M. Saturday evening. By way of Baltimore Avenue and Darby they struck the Chester Pike and then rode straight to Wilmington.

Experiences were many and varied both going and returning. At Middletown, for example, a shepherd dog—unused to such sights at 2 A.M. -jumped up at Hine and gave both boys a little



Newville Central Office Quarters and Ruins of Fire

scare, but he was soon gotten rid of and the was resumed

At 4 A.M. fatigue got the better of both of them and they rested for an hour or so between Middletown and Clayton. Here and there the oil light went out as they bumped over ruts or raised places and it was necessary to dismount and relight. As only one wheel was properly lighted, they walked through the towns.

The boys arrived at Clayton at 6 A.M., had breakfast at a relative's, took a run around the town visiting acquaintances, and then prepared for the return trip.

At Smyrna, some tomatoes were obtained for hand eating and four large surplus ones were put in their coat side pockets to eat en route. Hine's wheel skidded in sand, a few miles further on, and when he picked himself up there were tomato seeds in his hair and face and all over his suit. Just north of Wilmington, permission was obtained from a touring-car driver to hang on and coast. The speed was high and Hine's wheel struck a rut, throwing the rider for the umteenth time. His pedal was bent, his trousers torn, and dust helped to complete what the smashed tomatoes had overlooked in his general make-up.

They arrived home at 7 P.M. Sunday, hungry and tired. There were no punctures and it was a satisfactory jaunt.

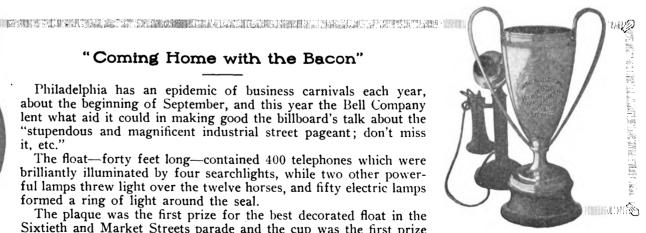


"Coming Home with the Bacon"

Philadelphia has an epidemic of business carnivals each year, about the beginning of September, and this year the Bell Company lent what aid it could in making good the billboard's talk about the "stupendous and magnificent industrial street pageant; don't miss it, etc.'

The float-forty feet long-contained 400 telephones which were brilliantly illuminated by four searchlights, while two other powerful lamps threw light over the twelve horses, and fifty electric lamps formed a ring of light around the seal.

The plaque was the first prize for the best decorated float in the Sixtieth and Market Streets parade and the cup was the first prize from the East Germantown Improvement Association.







The Ways of "The Woman"

Our Girls Enjoy a Theater

ONDAY evening two weeks ago was Theater Night in Philadelphia; those capitals are intentional. Three hundred forty operators on this occasion accepted without much hesita-

tion the invitation extended to them by the management of the Chestnut Street Theater.

One would have thought that the winter social season had opened and that Mrs. What's-hername,-you know whom I mean, that very rich woman,-well, one would have thought she was giving an exclusive function at the Rjudging from the array of gowns displayed that evening. Telephone girls came in groups of anywhere from two to a dozen, and from every direction.

This matter of putting a smile in your voice, and consequently on your face, must be contagious, for everybody seemed infected. And once inside the theater, spontaneous laughter and chattering caused several sedate holders of one of the boxes to raise their lorgnettes to see what had become of the cold and severely dignified audience that has long been typical of Philadelphia.

What on earth has happened now? Why this sudden silence? Looking around half expecting to see something awful, one finds the curtain is being hoisted. And before the second curtain has stopped quivering, out pops the leading lady. Miss Gertrude Dallas, and plants herself down at a P.B.X. in front of three new Bell telephone booths. No wonder this momentary silence was "busted" by an applause that would have gladdened even a World's Series player.

Well, after that the characters came in and out and each asked Miss Kelly for a telephone number, and left the booth door open when she talked, until everybody could absorb what the play was about. Wanda Kelly, you see, was the part that Miss Dallas was taking. Anybody could tell that the plucky operator was going to be the principal character in "The Woman."

Consequently, at the close of the first act the curtain went down and up until Miss Dallas had been forced to bow six times. But she didn't seem to mind, and in the last spot-light she threw a kiss to the telephone girls in the audience that started the noise all over again.

"Why, there is Miss Nelson with Miss Train, and over there is Miss McCabe!" "Why, I didn't know there were so many here!" "Wish we could get Miss Woods to look over here. Say, Mabel, can you move along one? Thank you." "Oh, look! 'Information' has got some candy!" "Say, don't this information—I mean intermission seem long! Oh, there go the lights!" And the chatter dies a slow death.

Perhaps Miss Dallas, as the theatrical reporter would say, "played the part with gracious spirit which won unstinted admiration for the telephone girl"; but what appealed to those who knew what's what in the audience was the professional way in which she handled the switchboard. It is true the rules were stretched in a couple of instances, but these infringements were surprisingly few in number when it is considered that nobody has been so sadly misrepresented on the stage as the telephone operator.

Besides, by the way some of those actresses perform in melodramas and on certain movingpicture films, one would suspect that they were placing snakes in the knot-holes of a dry goods box, if their "switchboards" were not such "social centers."

Consequently it was a delightful relief to find a stage switchboard attended in a realistic man-It is of interest to know this is due to the fact that Miss Dallas had spent the week before studying in our school of instruction at 406 Market Street. After that she secured some practical experience by operating a hotel P.B.X. during the night "trick." She actually said she found the work so interesting that next to being a leading lady she would rather be a telephone girl than anything else.

of the most beautiful dairy farms in the valley The place was called the "Maple Grove," appropriately named from the numerous maples from which they make quantities of delicious syrup

We knew the chief characteristics of the Yankee farmer are his regular habits and hours, so one of the first questions we put to him was what time did he have breakfast. You can imagine the expression on our faces when informed in a most comfortable voice that we could lie and rest, as they did not have breakfast before six o'clock We all had planned that sleep was to be one of the luxuries that we intended to enjoy during the vacation. Therefore we kept this quietly to ourselves, and generally put in our appearance about eight o'clock. Those breakfasts are worth men-



MISS GERTRUDE DALLAS AS WANDA KELLY IN "THE WOMAN" BELL TELEPHONE EQUIPMENT, INCLUDING NEW STYLE FOLDING DOOR BOOTHS

Two Weeks in Vermont

By Miss D. L. White, Operating Force, Atlantic City, N. J.

HE most important part of this story (to us three telephone girls at least) was the saving up for a whole year for a two-weeks' vacation to be spent in the Green Mountains of Vermont. By making a certain amount of sacrifices (and incidentally our own clothes) the financial difficulties were overcome.

We started on our trip in the middle of September—the most beautiful time of year to enjoy New England weather, for by that time the late frosts begin to change the maples to a gorgeous red, making the sides of the mountains appear to be in flames for miles.

Before reaching all of this splendor, I must not forget to mention the pleasantest part of our journey, the trip up the Hudson by moonlight. My description would seem tame in comparison to a realization of the scenery along the banks of this magnificent river, to say nothing of the conveniences that the beautiful boats afford for having a restful night's sleep in the comfortable berths.

We landed safely, after one day and a night's journey, in a quaint little village called Wallingford, picturesquely located in the valley of the Otter Creek.

We were met at the tiny station by a kind and intelligent farmer, who took us to his home, one tioning, with buckwheat cakes and maple syrup, baked potatoes, doughnuts, real milk, pie, cheese and coffee. The preparation must have required nearly two hours.

After breakfast we usually started out while the dew was still heavy on the grass and walked for miles, climbing the steepest places we could find. Part of our time was spent in fishing, but most of it in rowing on the pretty winding creek.

We always managed to return in time for the midday meal, and then went to the barn and climbed up in the loft for an after-dinner nap in the hay.

During our stay at Maple Grove Farm, the local people had their annual county fair. To this everybody goes, and knows everybody else. A few races and a very few exhibits were the main attractions. The most amusing thing to us was the jail, a small wooden temporary structure. When we saw it, three unruly characters had been placed in it, but the constable had no more than gone out of sight when we heard someone say. "Look, there goes the jail!" We turned in time to see these strong fellows walking off with the jail upon their shoulders. We would wonder that such a thing would be necessary at such a small affair.

Each day was spent in the same pleasant manner, never seeming to tire of walking and climbing, and each day brought us nearer to the close of our vacation; so here we are again at our occupations.

The one proof of our pleasant time is a fine collection of snapshots which we managed to get, for we never failed to take along the camera.

Chief Operators in Canada

T was the pleasure of Misses Mattie E. Minnick, Clara A. Conner and Frances McFadden, three Philadelphia Chief Operators, to spend their vacations together, partly in the United States and the rest in Canada.

The trip started with a ride through the Lehigh Valley—so called, the Switzerland of America. Stopping at Buffalo, a visit was made to the new building of the New York Telephone Company, in which the Commercial, toll and "Seneca" central offices are located. These offices were found to be attractive and interesting in every way. The Traffic Supervisors who helped to make this visit pleasant, eagerly inquired about our General Superintendent of Traffic, Mr. J. C. Lynch, who had formerly been associated with the Traffic work in Buffalo.

Niagara Falls, Toronto and Montreal were then visited in turn. At the latter place they met Mr. Robert Jones, Manager, Mr. J. A. Anderson, Traffic Chief, and Mr. G. E. Higgins, Superintendent of Plant. Miss Florence Hendry, Chief Operator of the School for Operators, escorted the party through the very busy "Main" central office.

Quaint Quebec was next visited, and Mr. Flynn, District Traffic Chief, made the party welcome and showed them through the only central office there. The good discipline and high grade of service furnished were noticeable. As mentioned in our last issue by Mr. J. Henkle, Traffic Inspector, Trenton, N. J., the operating in Quebec must be done in both English and French.

Ottawa, Canada's capital, is a pretty and interesting city requiring two central offices. As our time was limited, we were unable to visit these.

Our journey home was by way of Lake Champlain, Lake George, the Hudson River to New York, and then to Philadelphia.

A Bermuda Vacation

By Miss C. A. Leusch, Publicity Department Philadelphia

ITH the blast of a bugle and the deep, long sound of a horn, slowly the steamship "Bermudian" started from New York for its brief southeastern trip to Bermuda.



IN FRONT OF A BANANA TREE
MISS LEUSCH SEATED

ABOVE: THE BOAT THAT TOOK US OUT TO VIEW THE "GARDENS" BELOW: THE GLASS-BOTTOMED BOAT

HISTORIC CHURCH WITH
PICTURESQUE
SURROUNDINGS

The day of our departure, Wednesday, September 10, was cold and autumnlike, but before sunrise of the following day a decided change in the temperature made clear to us that we were rolling in the Gulf Stream, and from here the water was as blue as the sky.

An orchestra on board proved soothing to many a weary head, but the most appropriate notes pealed forth in "Rocked in the Cradle of the Deep," for rocked we were,—one minute nothing but sky, then only the water, with an occasional glance at the horizon for variety.

By nine o'clock on Friday morning we were in Bermuda. This "land o' dreams," as it was well named by one of the party, consists of a main island about 25 miles long and a number of tiny islands, 625 miles east of the Carolinas. The only means of conveyance here is by carriage, donkey-cart or bicycle, inasmuch as automobiles, electric railways and the like are prohibited. The carts furnish picturesque settings to the views.

We visited Gibbs Hill Lighthouse on the first day, where a climb of 190 stairs was rewarded

by a magnificent outlook of both land and sea, and the inspection of a wonderful lamp of which the keeper was very proud.

A full day was spent in a visit to St. George's, at one of the extreme ends of the island. En route, we stopped off at the Devil's Hole and The former, enclosed in four Crystal Cave. walls, is said to be thirty-five feet deep. water is so clear that one can count the pebbles on the bottom. In it are fish of many varieties, vividly colored, a particular species changing color from dark brown to pink, salmon color and deep red. There are also turtles in this hole, one of which, we were told, weighs 266 pounds. At feeding time it was amusing to see the fish jump entirely out of the water and, with a loud noise, snap whatever was thrown them without even discriminating!

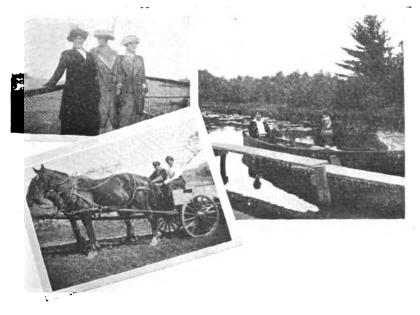
The Crystal Cave, with a mirrorlike lake, is beautiful in its many stalactites and stalagmites. There are formations of birds and animals, also an ice palace. If there be truth in the childhood story of King Frost, surely this was his abode. With the aid of electricity our guide produced the setting sun, the rising moon, and many other effects.

One of the most interesting sights of Bermuda is the "Sea Gardens." We left the hotel in a small steamer which carried us a few miles out into the ocean. Here we stepped into a flat glass-bottom rowboat. A few strokes of the oars brought us to the spot. Talk about mermaids' gardens! Here they are,—trees and plants of coral formation, and fanciful seaweeds too.

Bermuda claims the finest beaches in the world, and its blue, tepid waters make bathing more delightful than ever. Sailing, too, is an attractive feature

Typical of this little "Paradise" are the all-white houses, which give to one approaching Bermuda the impression of cemeteries scattered here and there. These piles of white stone which seem to have been in their present positions so long also add to the feeling of tranquillity that comes to the visitor at Bermuda.

Were I asked the best time for a trip of this kind, I should say "Under the harvest moon."



MISS D. L. WHITE, OF ATLANTIC CITY OPERATING FORCE, IN VERMONT (See page 18)

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At the County Fair

By F. J. Wisse, Publicity Department, Philadelphia



O I know the Great Allentown Fair?" was the way my friend answered my query. "Do I know my own name? I just reckon I've been going there ever since I could toddle down the Midway and watch the dancing girls with father and yell out 'S'matter, pop?' when mother tried to drag us away to see the needlework exhibit. Anna and I used to

make it our fall outing before we were married. That was,—let me see,—how many years ago?" "Sh-h!" warned his wife, "that would be telling"

Caught by his description of the marvels of the Allentown Fair each year, "bigger and better than ever," I promised to form one of a party to enjoy it when the eventful date arrived. That's why big Thursday found us all embarked on the

excursion train that wound its way through the flourishing Pennsylvania German farms and towns to the city of Allentown, which advertises itself in huge electric letters with the slogan, "Dwell Here and Prosper." There we boarded a trolley packed with its human cargo of rollicking, joy-anticipating people. The car carried us down the main street of the city of the Allens and revealed to us every evidence of the truthfulness of its advertising phrase. Prosperous-looking were the business places and the residences, too, which we saw as we neared the fair grounds.

I'd been to fairs before, of course—country fairs; but to call this a country fair is as much a nisnomer as calling a plain ordinary waltz a turkey-trot because it's danced on a barn floor. Everything is up-to-date, and even a day ahead of the calendar, from the breathlessly danced tango by the couple in the vaude-ville programme to the Midway including a motordrome with a racing, tearing whirl of death.

True, the farm element is all there; the newest in power plows, automatic seed-droppers, auto farm trucks, automatic milking devices, but *not* the most improved hen guaranteed to lay eggs only when they are fifty cents a dozen.

Also the medicine man is still there with his group of plantation singers twanging the half dollars out of one's pocket with their melodies while the "doctor" passes out large samples of his Peruvian oil. It's guaranteed to grow hair on bald heads, cure rheumatism, charm colds, catarrh and bronchitis, and remove corns in a night. But, shades of the ballyhoo man! the "doctor" now works from a six-cylinder car.

What's a Midway without thrills and freaks? Here is the great animal show with "two (2) elephants," brothers (or, maybe, just brothers-in-law) to Jumbo; a wild man whose brown skin, rather baggy at the knees, reveals a white edging around the neck; and the barker only knows what sorts of terrifying lions, monkeys and donkeys within. In vain does the nimble-tongued and leather-voiced son-of-a-Klaxon horn

try to tell of the nerve-tingling, spine-chilling, blood-curdling acts within. Words cannot explain them. One must see (and pay) fully to comprehend. "Step right this way, gentlemen, and let the blood-orange-haired lady in the green Balkan jacket take your quarters."

Did you ever respond to the wiles of the sideshow man, pay your two bits or dime, and, after the show was over, listen to the barker again and watch his wonderful maneuvers, feeling that the best part of the show was on the outside?

What would the Midway be without dancing girls? Sh-h! this is a perfectly proper Midway, guaranteed by the Pure Food and Drugs Act (Serial Number 23). From the display on the outside of the show (of course, my friend and I didn't dare go inside) the tango has the only Oriental Midway dances beaten to a frazzle.

Here's a barker who is a mesmerist too. See how he puts the pale young lady in the blueand-gold kimona to sleep leaning on a broom. Now he's performing the wonderful feat of levitation—lifting her horizontally in the air.

Marvelous! Walk right in and see the other marvels in this show, while the erstwhile sleeping girl, now brightly awake, gathers the shekels. She is the wife of the mesmerist. They are

"hinge"—and then deftly insert a long, sizzling frankfurter. A great dab of yellow mustard adds the finishing touch. "They're fine; they're steaming hot; they're right out of the pot. Here y'are, a nickel apiece; a pound o' meat and a loai o' bread. Get 'em while they're hot."

Exhibits? Oh, yes indeed, there are exhibits: horses and cows and porkers and a noted poultry and pigeon exhibit; all sorts of ribbons and prizes, too. The owner of one group of prizewinners had won enough ribbons to make a cushion top. (No, a close examination failed to reveal any ribbons that had come with cigarettes or cigars.)

Then, of course, there were pumpkins as big as a bass-drum, corn as long as your forearm, potatoes any one of which would make a meal for a family, and apples in tempting rows and pyramids, around which small boys longingly lounged with bulging eyes and caving stomachs.

The women's exhibits must have been really fine if one may judge by the crowds of women who gazed on them with rapture. Everywhere were signs of the thriftiness of the Pennsylvania German housewife. Embroideries and needlework galore were there, and enough comfortables to cover a multitude of shins. And such pastry!



both young and they think the show business is fine. She says that she would rather go to sleep on a broom than work with one.

Ah! get a whiff of that? Here is the hot dog—pardon, I mean hot frankfurter stand. "Get 'em while they're hot!" It's a treat to see the fat proprietor in the white apron and cap cut a long roll in halves—making sure to leave a

Pies and angel-cake and wedding-cake and other varieties. I am afraid I emulated the small boy here, for my friends had to drag me away from the mouth-watering exhibits.

Right outside of the women's exhibit hall was the yellow-bannered booth of the suffragists—another touch of the new day. They didn't stay

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in their booth, these suffrage ladies—no, indeed they got out and cornered the men (who didn't mind being cornered at all, for some reason or other) and gave each a carload of literature. Over at the other side of the hall were the antis. It is not known whether any clashes occurred before the fair was over, but my friend and I were loyal suffragists and just as loyal antis, according to which booth we visited. That's a tribute to the persuasive powers and pervasive good looks of both camps.

Farmers, indeed! Shades of Parisian costumers! Here are hats by Poiret; a chiffon plush creation by Bernard in Tete de Nigre shades (do you suppose that means black?) priced at \$150; an evening gown, also by Poiret, with a wired minaret skirt. Do you suppose these are made

for farmers' wives?

And furniture too! Mahogany suites in Sheraton design and Circassian walnut furniture of the Louis Quinze period—"Loui-ee Quince," the salesman called it; perhaps that was to lend a little down-to-nature touch to it for the benefit of the unsophisticated rural folk.

Even if one were not a telephone man, one would look twice at the Bell exhibit at the fair. Tastefully decorated in the good old Bell blue relieved with white, and with a private branch exchange operator and switchboard enthroned in a central position, it attracted much attention. The crowds came-men, women and childrento take away the souvenir fans and pins which were given out. An attractive advertisement which was also distributed was a Blue Bell whistle. Its screeching noise vied with that of the auto horns, especially when a good race was

Local Manager George Wolfe, who had charge of the exhibit, together with W. O. Howard, who decorated the booth, cordially received the visitors. There were 30 stations located in different parts of the grounds. There were three attended and three unattended public telephones. The new public telephone booths were the subjects of comment. The sliding folding doors were



likened to the doors of the pay-within cars.

The fair, bringing many strangers to the city as it does, makes quite a big increase in the telephone traffic, and the operators at the local central office are kept busy handling the increased calls, both local and toll.

Here I've been talking about the fair and never

once said a word about the crowd which makes the fair—a good-looking, prosperous crowd. For the most part it spoke English with a German accent, and German with an English accent. and Pennsylvania German with accent and idions resembling no other language under the sun except Pennsylvania German. The grown folks had fun, the young folks were hilarious, and the kiddies were at the top notch of joy. One little fellow watching, with hair on end and star-ing eyes, the antics of a slack-wire artist high in the air, exclaimed characteristically, "I'd be

tumbled down long ago, already."

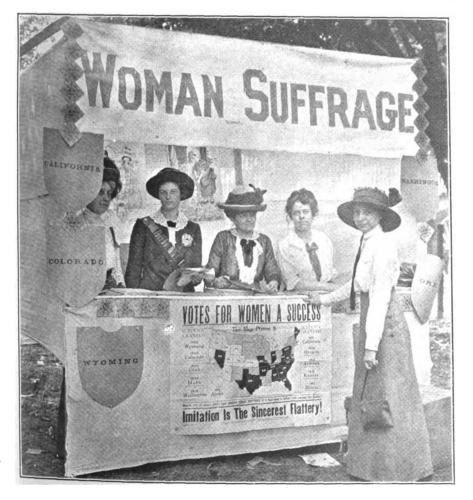
Then there is the Allentown Fair girl,—many hundreds of her. Someone else, more observant and younger, should be delegated to tell of her charms, but they are there just the same. And always the Allentown Fair girl carries around the Blue Bell telephone fans-indeed, everybody does. They were the most conspicuous thing on

the grounds.

After one has had one's fill of hot frankfurters, lemonade, peanuts and other liquid and solid diet for lunch, one repairs to the grandstand. "Grand" is a good name for this great concrete stadium seating over 10,000 people and overlooking the half-mile race track, the aviation field, and the parking place for the thousands of automobiles in which the farmers and others come to the fair.

The big events of the day take place here. The pacers and trotters perform, the vaudeville acts commence, the sweet-voiced tenor singer makes himself heard through the entire grandstand by means of a megaphone, the two aero-planes fly back and forth and up and down, and two big balloons rise "high up" thousands of feet and drop their passengers in double and quadruple parachute drops.

But it's the horse races which attract the crowd and hold their attention. From the stand, from the hundreds of autos, and completely surround-



"OUTSIDE WAS THE YELLOW. BANNERED SUFFRAGIST BOOTH; OVER ON THE OTHER SIDE WERE THE 'ANTIS'"

Harrisburg District



PERFORMING THE WON-

LOWER: "THE CROWDS TAKE starts?" AWAY THE BLUE BELL FANS, PINS AND WHIS-TLES"

A local business man had just returned to the city from a week's outing with his family at the UPPER: "NOW THE BARKERIS Summer home seventy miles away. Interrupted by a call from there, he stopped his work to find DERFUL FEAT OF LEVITA- his eight-year-old son calling. The boy's query tion" was, "What date did you say the World's Series

Reading District

Miss Catherine Loftus, one of the night operators at Pittston, received a signal in the early morning of October 2 from a line serving the

First National Bank. On answering it, she heard only groans. Suspecting a robbery or something else of that nature, she called the police headquarters. patrolmen gained admittance through the assistance of another of the bank's employees. they discovered the night watchman suffering from what was later found to be a paralytic stroke. The patient, who was taken home at once, had probably anticipated some. thing serious and had gone to the telephone to summon

aid when stricken with the serious malady.

Miss Loftus' presence of mind was treated by her as nothing but duty, although medical aid and stimulants promptly administered, as the result of her act, were the cause of prolonging the patient's life.

A Reading public telephone user at one of the depots called Pottstown. When she insisted that she had dropped the money for the toll, it was brought out by a woman who stood near that the coins had been deposited in a weighing machine. Such instances, not altogether new. show how unfamiliar some of the public telephone users are with the service in general.

HYKES.

The French governmental telephone system is as unsatisfactory as the British one, if newspaper and users' accounts are to be credited. In Paris the Telephone Subscribers' Association, headed by Marquis de Montebello, is advocating among other changes the adoption of the measured rate for telephone service generally.

At the Allentown Fair

(Continued from Page 21)

ing the half mile of fence that runs around the track, the 100,000 visitors of big Thursday watched the racing horses swing around the track and come to the wire in blood-stirring finishes.

Yes, it's a great fair that entertains an average of 75,000 visitors a day on the fifty-two acres of its ground. And Allentown is a great town. There was only one disappointment in the entire day: from my earliest youth I've heard of Allentown apple pie, of its delicious crispness of golden-brown crust, of its most palatable filler packed so high that each pie looks like a series of mountain ranges. I've nothing whatever to say against the pie, I presume it's fine. I ordered a piece, or cut. I got one mouthful. The piece was so small that it could allow a peanut a handicap and still win out. But, anyway, this is a story about the Allentown Fair, and that is great.



Altoona District

During a brief hot wave, 1000 Blue Bell fans were distributed in the Orpheum Theater at Altoona, and at the request of an officer of the Ridgway Borough Council fans were also supplied for their use.

When an Altoona subscriber missed his telephone directory, he searched and found it had been "in use" in his daughter's playhouse. She

gave it up reluctantly, saying, "I want a telephone for my playhouse to call a doctor when my dolly gets sick." There's a future subscriber for the local salesmen to keep in mind.

Not often are our representatives called to the telephones of the other company. In Lewistown, however, our Local Manager was quite willing to be summoned when such a message informed him to present an application form for our service, as the caller intended to have the other station disconnected.

The play known as "The Woman," mentioned elsewhere in this issue, was presented by a local stock company at Lakemont Park, Altoona. This play, featuring the operator at work, has been given in all parts of the Harrisburg Division. As in several other instances, our Company furnished signs and other telephone equipment. Fans were distributed to the audience, and one of them was used by the operator.



THE TELEPHONE NEWS

23

Our Societies

The Diamond State Telephone Society

601 Shipley Street, Wilmington, Del. Thursday evening, October 16. Speaker: P. E. Tillson, Assistant Engineer. Subject: Not announced.

340/667.

The Telephone Society of Harrisburg

Board of Trade Auditorium.

Monday, October 20.

Speaker: Mr. J. M. Repplier, Division Manager, Atlantic Coast.

Subject: "Joint Telephone and Telegraph

Atlantic Telephone Society

14 S. New York Ave., Atlantic City, N. J. Tuesday, October 21. Annual meeting to elect officers.

Camden Telephone Society

Goff Building, 23 Broadway. Thursday, October 16. Election of officers.

The Spare Pair Society

Kugler's, 1412 Chestnut St., Philadelphia, Thursday, October 16, 7:30. Annual banquet.

The Cross Talk Club



Offices.'

BRISTLING with spirit, yet characteristically good-natured throughout, was the first of the season's gatherings. Although the meeting night is usually the second Tuesday of the month, the House Committee chose

the first Thursday this time in order not to conflict with The Philadelphia Telephone Society.

The place chosen was the banquet room of the new Hotel Vendig, Thirteenth and Filbert Streets, Philadelphia. Forty-five members and guests were on hand at that occasion—the second time the new banquet room had been used.

Mr. P. G. Burton, Engineer of the C. & P.—an honorary member—came from Baltimore, and New York was represented by two guests, Messrs. T. P. Sylvan, Secretary Employees' Benefit Fund Committee, and J. S. Kennedy of the General Attorney's office.

After the usual general greetings, places were taken at the U-shaped table and the new chairman, C. O'D. Lee, called the meeting to order. Secretary A. deB. Robins—who as treasurer had "touched" the members as they came in—then read the "minutes" of the May 13 meeting and referred all to the July 1 Telephone News for the report of the June meeting. He announced the names of the new Governing Committee and the fact that the club now has 46 resident, 11 non-resident and 13 honorary members.

The paper of the speaker of the evening, Mr. W. B. Clarkson, Division Manager, Pittsburgh, was generally characterized as one of the very best and most thoughtfully prepared that has ever been presented before the club.

Comments were made by Messrs, A. E. Berry, F. C. Moody, C. C. Brown, J. S. Francis, P. C. Staples, T. P. Sylvan, J. S. Kennedy and P. G. Burton.

Harrisburg Division Construction Work

New central office equipment is planned for Forest City, Pa., costing nearly \$4000.

Over \$14,000 has been appropriated for additions and improvements to the plant in Williamsport and \$9000 for the rebuilding of the 90-mile pole line between there and Tyrone.

The plant at Hazleton is to be bettered at an appropriated cost of \$17,800. Beginning October 1 underground work will be started to replace aerial construction on Broad Street between Vine and Wyoming Streets, and other changes of this nature are planned.

Common battery service is to be installed at Stroudsburg and \$10,000 will be expended. A new five-position switchboard with a present equipment of 300 subscribers' lines is included.

Towarda, the county seat of Bradford County, is to have common battery service. A four-position switchboard with 360 subscriber and 20 toll lines will be installed at 211 Main Street. A new power plant and distributing frame are included in the changes, together with 19,000 feet of cable. The cost will be approximately \$10,600 and the work is planned to be completed November 1, 1913.



Organization Changes

The Bell Telephone Company of Pennsylvania

J. Farish, a Combination Man, has been appointed Wire Chief at Pleasantville, N. J. R. O. Demming, formerly Plant Chief at

R. O. Demming, formerly Plant Chief at Wilkes-Barre, has been made Plant Supervisor at Williamsport, Pa.

C. A. Donachy, as Plant Chief, has been transferred from Williamsport to Wilkes-Barre, Pa.

S. Herr has been advanced from Test-Table Operator to Senior Central Office Man at Lancaster, Pa.

C. M. Poet, who was Wire Chief at Lancaster, is now Plant Wire Chief there.

H. P. Wagner, Central Office Man at Read-

ing, has been made Plant Wire Chief at Leb-anon, Pa.

The Central District Telephone Company

Miss Carrie Barbian, clerk at Sharon, Pa., and Miss Mary McCormick, Assistant Cashier at New Castle, Pa., have become Cashiers in their respective offices.

C. S. Krouse, until recently Construction Engineer, Pittsburgh, is now Plant Supervisor, New Castle District, and J. K. Martin is now Construction Engineer there.

The title of A. H. Bowen, formerly General Cable Foreman, Pittsburgh District, has been changed to Supervisor of Construction.

J. Braum has been advanced from Installer to Storekeeper, Pittsburgh District.



FELLOWS-HIS EARLY-MORNING CATCH

H. C. Kunkel

Plant Superintendent, Eastern Division

NOTHER of our well-known employees whose present position was reached by gradual steps is the Eastern Division Plant Superintendent, Mr. Kunkel.

Employed January 1, 1897, as a draughtsman by Mr. P. L. Spalding, then Assistant Engineer, Mr. Kunkel gained valuable experience in conduit engineering. To other duties were added those of estimating mainly on underground jobs in both Philadelphia and the surrounding territory.

Shortly afterward Mr. Kunkel's entire time was required "in the field." Reporting to the Conduit Engineer, he and another young man had charge of all outside gangs engaged in conduit construction work. During this time the Company's subway on Market Street west of Fifteenth Street was changed to Arch Street. Also, for a short disance on Seventeenth Street, a 72-duct subway was constructed in the same trench, with a fourfeet sewer.

About the time of the formation of the Maintenance Department in Philadelphia, June 1, 1903, Mr. Kunkel was transferred to it.

In March, 1904, Mr. Kunkel was appointed Engineer of Distribution, Philadelphia, and under his supervision much of the present plan of plant distribution was determined upon and executed.

For about a year subsequent to August, 1904, experience was further broadened by duties in the Equipment Department as Plant Supervisor of the central part of Philadelphia.

In November, 1906, Mr. Kunkel became Plant Superintendent of the New Jersey section of the Delaware and Atlantic territory. Shortly afterward the Wilmington, Del., District was added and still later the Diamond State districts of Delaware, Maryland and Virginia.

What had been known as the Eastern Pennsylvania Division of the Plant was added to Mr.

Kunkel's territory in March, 1910, so that the transfer of Maryland and the Eastern Shore of Virginia to the C. & P. now leaves under Mr. Kunkel's supervision a plant investment of over \$13,000,000, including 22 central office districts in Delaware, 58 in New Jersey and 74 in Pennsylvania serving nearly 100,000 stations. It is interesting to note that with Philadelphia alone excepted, this division leads in the toll wire mileage in tables.

Mr. Kunkel is thirty-seven years old, a Philadelphian by birth, education and business experience. His Bell service was preceded by training in high-pressure steam engineering and by electric railway contracting work.

During the 1912-13 season Mr. Kunkel—who was also the first Secretary—was the President of The Philadelphia Telephone Society.

Wireless But Not Drumless

From time to time there appears in the newspapers a story of how information of general interest is passed through from the coast to the interior of Africa, and vice versa, by means of drumlike instruments. It is said that all through the night, as well as day, Africa reverberates with the beating of these drums, and the generally understood code effects the spread of news of all sorts with an astounding rapidity and distance. Messages have been known to travel sixty miles by this method within two hours—not so fast as our telephone method, to be sure, but more rapidly than their swift-footed Mercuries could go.



HENRY CLINGER KUNKEL

Telephones for Rescue Work in Mines

Life-saving in mine accidents will be aided by a neck telephone just perfected in the Pittsburgh station of the United States Bureau of Mines. This device will enable the rescuer in the mine struggling through smoke and gas to talk to those on the surface. With the mouth-breathing apparatus which the Government men use an ordinary transmitter is impossible. In the case of this new apparatus an ordinary receiver is fastened over the head, but the transmitter is a supersensitive plate strapped against the neck. As a result it is only necessary for the rescuer to talk in his throat in order to be heard distinctly a mile or so away.

Marietta, O., Building Alterations

O avoid the March, 1913, disaster and previous less serious losses in Marietta, Ohio, (Wheeling, W. Va., District of our Pittsburgh Division), it is planned to expend somewhat over \$30,000 in alterations and additions to our building at 308 East Putnam Street.

The present stone foundation walls of the building are to be removed, the walls underpinned, and new foundation walls will be constructed. A third story will be erected and a new stairway from the basement to the third story at the rear of the present building. Metal window frames will replace the present frame ones.

During last March, when the water rose to a point eight feet nine inches from the floor of the terminal room, the plant for three days was entirely out of service.

The Government engineers have said that no future floods may be expected to rise beyond the second floor of this building. It is therefore planned to remove the switchboard from the first to the second floor and to transfer the terminal room from the first to the new third floor. The relocation of the stairway will permit further switchboard growth.

After relocation the basement will be occupied by the cable vault, heating plant and store-room. The first floor will contain offices, a storeroom and ultimately the operators' quarters. The second floor will have the Traffic quarters and the switchboard until growth of the latter will require the removal of the operators' quarters to the first floor. The terminal room, gas engine and battery room will be on the third floor.

Marietta's population is 12.923, to serve whom our Company has 2126 stations in service.

From Canada to Barnegat Bay, N. J.

Mr. H. W. Wood, Wheeling District Traffic Supervisor, spent his vacation visiting the old home in Vermont, where he lived on a farm. Of all the pleasures on his trip the one that touched him most was, at milking time, to find his own old cow—older and wiser, but still comfortably chewing her cud. He also visited Canada, sightseeing in Toronto and Montreal. He spent some time in an automobile, touring through the White Mountains of New Hampshire. This not too active sport left him tanned and heavier. Then with a friend he went to Barnegat Bay. N. J., with fishing rods and tackle, coming away laden. Any effect the telephone business has had upon our Traffic Supervisor's fishing abilities is not noticeable.



TUBERCULOSIS

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee

There is no disease with which the public is more familiar than tuberculosis, or phthisis, commonly known as consumption. The frequency with which it occurs is indicated by very carefully prepared statistics relating to this subject, which show that one of every seven deaths throughout the world is due to tuberculosis, and at least 150,000 persons die of this disease in the United States every year.

From this rather depressing statement we turn to the more comforting part of the subject, for the purpose of this article is rather to describe the means by which tuberculosis is transmitted and to show how it may be avoided, and if a person is unfortunate enough to contract the disease, the hope of recovery that is extended if the infection is early detected and the patient promptly and properly cared for.

For centuries tuberculosis has been described in medical literature, and various theories have been suggested as to its cause. Its infectiousness has long been suspected, for as early as the seventeenth century the bedding and clothing of consumptives were burned to prevent danger from this source. The belief that tuberculosis is hereditary, and may appear in various members of a family as a result of this cause, has until recent years been generally accepted, and the appearance of the disease in the past has been largely explained in this way. Many other theories have from time to time been advanced as to the cause of tuberculosis, but the true means of infection was not definitely determined until about thirty years ago, when Dr. Robert Koch, of Germany, presented as the result of his researches conclusive proof that this disease is caused by a specific germ or organism, scientifically known as the tubercle bacillus. This organism is a little rod-shaped body, which is revealed only by the microscope, for it is so small in size that it would require almost three thousand of them placed end to end to fill the space of an inch.

This important discovery was quickly followed by most active and extended investigation throughout the world, in order to secure further information as to the habits of this organism, its power of resistance, and the manner in which it may be destroyed. It has been proven that tuberculosis is contracted only through the medium of the tubercle bacillus, and that heredity plays no part in its transmission, although a naturally weak resistance may descend from a parent to children, and in

this way render them more susceptible to this as well as other diseases. The value of this knowledge cannot be overestimated, for it enables us to deal directly with the only cause of infection.

Later results, largely through the indefatigable work of Dr. Koch, have shown that animals and fowls are also affected by certain forms of tuberculosis, although it is only the bovine variety, or that which occurs in cattle, that concern us, for in this instance the tubercle bacillus is similar to that found in the human being and may be transmitted to the latter through the medium of infected cow's milk. In some uncommon instances diseased meat may cause infection, although the latter is a very unimportant factor, for meat is cooked before it is eaten and the germ is thus destroyed; besides, meat prepared for sale is now under careful official inspection.

Children suffer from infected cow's milk. for it is probable that more than one-quarter of all cases of tuberculosis occurring under five years of age are contracted through this course. For various reasons, adults rarely, if ever, contract consumption in this way. Therefore, while the milk from infected cows is a dangerous factor in the transmission of tuberculosis in very young subjects, it is insignificant compared with the infection conveyed from one human being to another, for by this means more than 90 per cent. of all cases of tuberculosis are contracted. For this we are individually largely responsible, for by proper care and the observance of modern sanitary regulations the number of cases of this disease can easily be reduced.

While tuberculosis may attack various tissues of the body, it usually selects the lungs for the seat of its operations, and it is this form of the disease with which we are chiefly concerned in connection with its prevention and cure.

The germs of tuberculosis upon reaching the lungs multiply rapidly and cause local inflammation and subsequent loss of tissue, which is responsible for the cavities formed in the latter stages of the disease. This broken-down tissue, containing tubercle bacilli, is thrown off with the expectoration or sputum, and it is through the medium of this matter that infection is transmitted.

It would be impracticable even to attempt to enumerate the various avenues by which infection is conveyed from one person to another. Tubercular expectoration in the street, the expectoration of consumptives within their homes or in the workshop, articles which are used in common in connection with food and drink, infection by unclean hands and by other means of contact. are among the media more commonly referred to. We have learned much in regard to the germ itself which has a direct bearing on this part of the subject, for careful experimental work has shown that when the bacilli are exposed to sunlight and fresh air they succumb within a very short time; but when the sputum is deposited within the house, particularly where the apartments are badly ventilated and where there is but little or no light, the germs may retain their vitality for a long period. This teaches us that the danger of contracting the disease is not in the open air, but within the house or workshop. Therefore, tuberculosis is an indoor disease, for the various factors which are needed to favor its transmission and prolong the life of the tubercle bacilli, in the way of overcrowding, improper ventilation, uncleanliness, etc., are found here. For this reason also tuberculosis is a class disease, for the conditions just referred to are found chiefly among the poor, who are by far the most frequent victims of consumption.

The question is very naturally asked. Why, if the germs of tuberculosis are so generally distributed, do so many of us escape infection? The truth is we do not escape it, for it is quite certain that a large per cent, of all who have reached adult life, particularly those who live in cities or large towns, have been infected with this organism, although only a certain proportion present evidence of the disease. This is principally due to a good, healthy resistance on the part of the tissues, upon which the bacilli make but little or no impression. This condition is also constantly occurring in connection with other infectious diseases, such as typhoid fever and diphtheria.

Within the past few years conclusive proof has been presented that persons known as "carriers" contain infectious organisms within their body, and while apparently in good health commonly transmit disease to others. There is no doubt that our protection against tuberculosis, as well as against other diseases, depends largely upon a substantial resisting power. Of this we have much proof; for instance, it is well known that tuberculosis very commonly follows a debilitating disease or a condition which for the time being diminishes the vital forces.

SUPPLEMENT TO THE TELEPHONE NEWS

The importance of maintaining a natural resistance to disease in the way of good health has been repeatedly referred to in previous articles relating to value of fresh air, sunshine, exercise with proper expansion of the lungs in order that these organs may be increased in power and properly ventilated, good nourishing food, and careful attention to the digestive organs in order that food may be properly assimilated, and the avoidance of all excesses in order that the system may not be weakened. This plan does not intend that we shall live in a restricted or in an unpleasant way, but that we shall preserve a normal condition of health by careful attention to personal hygiene. Other preventive measures, so far as tuberculosis is concerned, relate chiefly to protection against infected sputum in instances where there is reason to believe cases of known or suspected tuberculosis are present. This may be secured largely by the avoidance of articles which may be used by those who are infected, and which may transmit the organism to the mouth of others-cleanliness not only of the hands, but in various other ways, is of great value in this direction.

Beyond these and other reasonable precautions, we should dismiss the question of infection from our minds and not expect to find it lurking everywhere, for this does not occur. Furthermore, the danger of contracting tuberculosis in the street or public places or conveyances need cause no alarm, for its importance is greatly overestimated. It is rather in the home or workshop where we must deal with the infection of this disease.

The cure of tuberculosis depends chiefly upon the recognition of the disease in its early stages, for then it is far more successfully dealt with, as but little of the lung tissue is involved in the process of destruction and the general health of the patient is not seriously impaired.

There is no other disease where recovery rests so largely in the hands of those who are infected as tuberculosis, for there is no remedy in the way of medicine, vaccine. serum or any other agent which can be depended upon for aid in the cure of this disease. Advertisements relating to so-called consumptive cures are being constantly presented to the public; these nostrums are offered for sale with the most attractive testimonials. If those who are being misled by these worthless agents could know the lives that have been lost by depending upon them until it is too late to derive benefits from proper sources, it would go far towards exterminating this menace to the public health.

While the cure of tuberculosis depends chiefly upon the efforts of the patient, it is imperative that he shall be under medical direction and supervision, at least until he has learned the discipline of the care and treatment of the disease. It is not expected that a layman will be able to recognize tuberculosis in its early stages, but when-

ever a person finds that his general condition is becoming impaired-by such evidence as loss of weight or appetite, irritability, fatigue, continued cough, etc.--he should without delay consult a physician, whether or not there is any evidence of pulmonary trouble, for in the beginning of the disease attention may not be attracted to the lungs. Dependence upon home remedies in these instances is unfortunately widespread, and is to be condemned, for it frequently involves danger to those who are disabled. This does not refer to the careful and valuable nursing one may receive at home, but rather to the absence of proper medical supervision. Aside from the protection to the patient which this extends, it is economy to promptly seek medical advice, for by this means recovery may be sooner effected.

By following the above course, tuberculosis may be promptly detected and a wellorganized compaign may be planned for the cure of the patient. This will involve instruction regarding the best and most practical means of obtaining fresh air, rest, and good nourishing food-which constitute the most valuable factors in obtaining successful results. These instructions should conform so far as practicable with the financial and social conditions of the patient, who will also be instructed as to the danger of infected sputum and what he shall do to destroy it, and how to protect others against infection from this source. Under certain conditions and proper advisement, the patient may continue his work without special injury to himself or to others. In cities and large towns dispensaries and clinics may be found for the treatment of the poor; therefore there is no reasonable excuse why a person in any station of life should not be able to secure early medical

Parents and guardians have an important duty to perform in this direction, for tuberculosis occurs principally in early life, and any apparent deviation in the health of those under their care should call for a prompt and careful physical examination. It is also the duty of an employer to carefully observe the physical condition of his employees, not only in the interest of those who may have tuberculosis or other infections diseases, but for the protection of the associate employees as well as the employer himself, for the minimum amount of sickness means more satisfactory and less interrupted service and really constitutes an economical factor.

A word may be said as to the danger of infected milk and the means by which it may be prevented. In cities where we must depend upon a supply from innumerable dairies, we cannot be sure of milk which is not contaminated, except in instances where a large and often a prohibitive price is demanded. For this reason we must resort to domestic means of protection against infection from this source, particularly where

there are children in the household. Pasteurization is generally accepted as the most practical and simple means we can employ for this purpose. Boiling is sure to destroy all germs which the milk may contain, but it renders less valuable some of its nutritious constituents. Therefore, for prolonged use, Pasteurization should be selected. This process consists in subjecting the milk to a temperature of 150 degrees for twenty minutes, then placing it on the ice. This temperature does not affect the milk as when boiled, which requires a temperature of 212 degrees, but it is quite sure to destroy the tubercle bacilli and render harmless other forms of bacteria which may be present. The details of this process, which have already been given in a previous article, are as follows: The bottles containing the milk, properly sealed, may be placed in a pan of water, the latter being raised to a temperature of 150 degrees and kept at this point for twenty minutes. The bottles are then to be removed and placed in the ice box close to the ice. As a matter of economy so far as the ice is concerned, the temperature of the milk may first be lowered by subjecting the bottles to a flow of cold water.

The use of powders or other mixtures advertised as preservatives of milk should be avoided, for they cannot be depended upon and may do considerable harm.

Modern sanitation demands that cows shall be kept clean and under careful observation, and that every reasonable means shall be taken to detect the presence of tuberculosis among them, for, as in the human being, this disease in its early stage is frequently overlooked. The tuberculin test constitutes a valuable and scientific means of detecting this disease in cows. and when injected in these animals a certain reaction follows if the disease is present, and as its accuracy may be depended upon, there is no valid excuse why private owners or dairymen should not make use of this test in order that milk infection may be prevented. Cows should not be purchased unless a proper and satisfactory certificate is presented to the effect that a tuberculin test has been made with a negative

It needs but a superficial study of tuberculosis to show that the disease may be prevented and cured if proper means are employed. Prevention depends chiefly upon a formidable resisting power on the part of the body, which it is not difficult to maintain if careful attention is paid to personal hygiene. The cure of tuberculosis depends upon prompt and proper medical advice and guidance, and strict attention to regulations which are prepared for the welfare of the patient.

When the public have learned how much can be done in this direction and the value of their co-operation, there is but little doubt as to the aid which will be extended in the extermination of this disease.

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Some Timely Topics*

By J. H. Crosman Jr., General Commercial Superintendent

*A paper read October 14 before The Philadelphia Telephone Society.

T is always a very real honor to be invited to be the speaker at a meeting of this big, important society, but it is always an honor that carries with it no little responsibility, for it is a consequential gathering of busy workers that meets here to listen to and discuss what a speaker has to say, and it behooves that speaker to have something distinctly worth saying. I conceive your invitation to read the paper at this the first meeting of the society this season to be if possible a higher invitation than usual,—if it is fair to say so,—in view of the serious portent which the times hold for us and for our business; and if I seem to-night to speak in a serious vein, let me preface my paper by saying that to us and for us these are serious times.

I asked your Committee to advertise this lecture as "Timely Topics," and I did so for the reason that, as I thought over the immediate past, the very pregnant present and the strenuous future ahead of us, it seemed to me there was nothing more important for us to do than to get a good, solid understanding of the signs of the times as a background for our very determined efforts to align ourselves with what is undoubtedly expected of us. There is a tremendous value in a keen knowledge of the psychology of the times, and not infrequently it constitutes the prime reason for success in business. Conversely, no small number of failures may be attributed to a lack of such understanding.

That times change, compelling new customs, new habits, new points of view, no one will for a moment deny,-surely least of all the men who make up the telephone companies, for there have been few contributors to rapid and revolutionary changes in business and society at all comparable to the telephone itself,—and it is of the utmost importance that we should make constant and earnest efforts to sense the changing requirements put upon us by the great public which we serve, ascertaining exactly what they wish us to do for them and attuning ourselves to its performance with an honest and whole-hearted determination to meet it wherever possible.

(Continued on Page 4)

Here Is the Story of a Real Workshop

Interview with F. H. Williams, Division Supervisor of Motor Vehicles

What makes the wheels go round? That's what we all want to know-in work as in other things. Most of us know that our Company owns a number of motor vehicles, but how many of us



SUPERVISOR'S OFFICE.

(LEFT TO RIGHT)-J. R. BONACHEA, E. S. MARTIN, F. H. WILLIAMS.

know how they are maintained? This was the question one of our readers asked the other day, and here's our answer:

About three o'clock last Wednesday afternoon two men, wearing two bumps of curiosity, arrived at the Company's garage located at 3411 Warren Street, Philadelphia, and asked Mr. F.

H. Williams, Division Supervisor of Motor Vehicles if he had time to be interviewed and photographed.

"Sure thing; come in," was Mr. Williams' cordial reply, and so we gathered about his desk and explained that we wanted to obtain an illustrated story about his combination hotel and hospital for able and ailing motor vehicles.

First we arranged for the pictures and right away the photograpner had his troubles, for it was considered too dangerous to take any flashlight pictures within the garage, and it was also necessary for him to return about 6 P. M., before the automobiles which we desired to photograph arrived from their respective jobs. But look at the photograph and see if the photographer didn't make a fairly good showing even under these

Result of Growth

Then Mr. Williams told of the growth of this remarkable workshop for motor vehicles. Up to a few months ago the Company workshop for these vehicles was located at 1706-18-26 Filbert Street; but as the number of Company-owned vehicles increased steadily, this location, under the Pennsylvania Railroad tracks, was outgrown. After some consideration the present quarters in West Philadelphia were leased in August of this year.

> to inspect the accommodations we have here. We are using ground-floor space only, but we have here 8880 square feet. One half of the space is used for storage and the other half for repair work, stockroom and office. All vehicles equipped with portable gas engines, from bicycles to fiveton automobile trucks for the Philadelphia and Eastern Divisions, are maintained at this workshop.

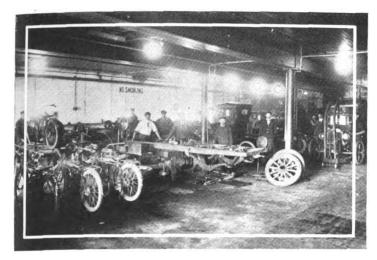
"Now, going back to the garage in the rear of the building, you will notice nearly every labor-saving device known to the automobile industry. Here is located the air-compressor, with an automatic control, for inflating tires, and there have been provided a number of outlets, conveniently located, so that it is not necessary to move any of the cars to inflate their tires. A similar arrangement has been made for piping the water for washing and cleaning the cars so that



FOREGROUND, 16 CARS AND THEIR DRIVERS. BACKGROUND, THE GARAGE AND WORKSHOPS LOCATED AT 3411 WARREN ST., PHILADELPHIA. THIS TATURE WAS TAKEN AT 6 P.M. ON A CLOUDY OCTOBER DAY AND IT WAS IMPRACTICABLE TO DELAY THE PHOTOGRAPH UNTIL THE OTHER VEHICLES, HOUSED AT THE GARAGE, HAD REPORTED AFTER THE DAY'S WORK.



it is not necessary to move the cars from their respective locations. In case of a fire," Mr. Williams said, "we have ten fire-extinguishers,



THIS ILLUSTRATION AND THE COVER SHOW THE WORKSHOP IN ACTION.

eighteen sand buckets, and a number of Pyrene extinguishers for gasoline flames.

Repair Equipment

"In the repair shop you will note a number of portable lamp stands equipped with four lamps, a reflector, and a long lead, providing excellent light for the night mechanic in making repairs and for the washing and polishing of cars.

"The repair shop is equipped with a lathe, drill press, grinding wheel, 36-foot workbench with 6 vises, an 8-foot workbench with 2 vises, and trestle blocks, motor stands, motorcycle benches, and a portable crane. Power for machinery is furnished by a 10 horsepower Western Electric motor. This motor is also used to run in truck motors on a block after overhauling.

"At one end of the shop," Mr. Williams explained, "is a stockroom 25 by 17 feet, equipped with metal lockers, bins and shelves, in which are kept a stock of tires, tubes, lamps, radiators, fenders, axles, horns, bulbs, pumps, spare wheels, cushions, speedometer shafts, housings, sprockets, chains, spark-plugs, springs, and a miscellaneous stock of automobile accessories and parts for cars and trucks that experience has proved most likely to need replacement. There is also kept on hand a small stock of motorcycle parts. It is interesting to note that this stockroom has reduced trips to suppliers fifty per cent.

"We keep lubricating oil, grease and kerosene

in safety cans, placed on a platform six inches high, with a galvanized sheet iron pan. There, too, is a gasoline tank with a capacity of 570

gallons, equipped with a pump, and a portable gas tank with a capacity of 50 gallons is used for dispensing gasoline to the cars and trucks.

"Expanded metal lockers are provided for the mechanics and chauffeurs, and," Mr. Williams continued, "the force consists of the Supervisor, his clerk and stenographer, day foreman, night foreman, motorcycle foreman, 9 day auto and truck mechanics, 3 motorcycle mechanics, 10 chauffeurs, 4 night mechanics and a storekeeper."

"What about the repair work?" I asked.

My informant replied: "All overhauling jobs, minor repairs and adjustments to cars pulled up to the garage, and emergency repairs on the road, are taken

care of by the day force. The night force makes all minor repairs, reported by the operators of the various vehicles stored in the garage on the daily card, 'Form Phila. 28.' All machines are

washed, polished, filled with gasoline, lubricating oil and grease. Radiators and oil lamps are filled, air-pressure tested and tires properly inflated.

"Tires found to be defective are replaced. The inspection made by the night force covers motor, ignition system batteries, horns, lights, Presto-Lite tanks, transmission, clutch, chains, sprockets, grease cups, and such attention given as may be required. Truck chains are greased nightly, removed and thoroughly cleaned twice a month.

"When a machine is delivered to the garage for overhauling or major repairs, the foreman or assistant foreman makes notes of such parts as are reported by the operator as requiring special attention, date of delivery at the garage is reported and a work

order issued. All appurtenances belonging to the car are checked and placed in separate bins under lock and key until the work is completed.

"Upon completion of repairs the machine is

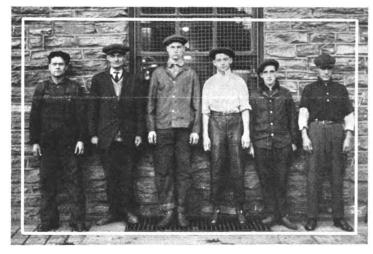
given a road test by the foreman or his assistant, together with the mechanic making the repairs, after which a report is forwarded to the Supervisor's office showing labor, nature of the job, length of time in the shop, the name of mechanics, and just what repairs were made. When a vehicle is ready for delivery all accessories are checked to make sure the original equipment is replaced.

"Road repairs that cannot be handled by the operator, upon being reported to the garage foreman, are taken care of by dispatching mechanic and machine with tools and necessary parts."

Citing Repair Cases

The Supervisor continued: "To give an idea of the promptness with which road repairs are made, let me cite the following instances: A foreman called up and stated that a wheel of his runabout was broken at Fifty-third and Walnut Streets. Within one hour of the time the report was received the wheel was replaced and the car was on the road.

"Recently in the case of a broken spring of a Studebaker car the foreman was notified at 9 A.M., and at 9:45 A.M. the spring had been replaced and the car ready for service. At 4:30 P.M., another day, a report was received that one of the delivery cars had met with an accident at Twenty-second and Ridge Avenue



GARAGE NIGHT FORCE. (LEFT TO RIGHT)—FRED STECKLE, FOREMAN, K. ROBERTS, N. F. ELLIS, H. F. McANANEY, H. M. LUDWICK, S. J. NEWELL.

which resulted in the breaking of the rear axle, completely disabling the car. Mechanics with truck, skids and rope were dispatched to the accident, car jacked up, and, with its rear to the (Continued on Page 16)

GARAGE DAY FORCE. (LEFT TO RIGHT)—T. L. HARRIS, FOREMAN; C. THOMPSON, ASST. FOREMAN; S. S. REMOND, MOTORCYCLE FOREMAN; W. A. RIES, W. C. FISCHER, M. WRIGHT, E. S. MACCARTHY, E. W. McKAY, J. F. MARTE, W. MARTIN, L. E. MARTIN, D. L. SCHAFFER, S. FENDRICK, G. W. KING, D. SCULLEY.



Some Timely Topics

(Continued from Page 2)

I have said that progressive conditions constantly require and compel a changed form of service in all the lines that minister to business and society in civilized countries, and I want to make an effort to seek out and discuss with you something of what these changing requirements mean just now explicitly for us.

Of late years there has slowly and steadily been growing and developing all over the country a tremendous new idea, about which much has been written and concerning which a considerable amount has been directly spoken to you in talks by previous speakers,—one particular paper which I recall having earnestly listened to, by Mr. Edward K. Hall of the New England Telephone and Telegraph Company, having indeed been devoted almost entirely to it and kindred matter,—so that there is nothing really brandnew in what I shall say to you about it to-night other than that the past few months have brought it forward and still further matured it until today it is undoubtedly one of the economic principles of the times. I am referring to the thoroughly changed and modified point of view which the great American public has finally come to hold regarding the furnishing of public utilities of America.

In so far as it concerns us, I How Public may briefly state it in this way: Regards Us The great difference is, whereas in years gone by, although the telephone companies took out charters from the states that gave them corporate entity and invested them with tremendously valuable rights and privileges, yet nevertheless they were, in practically every sense of the word, the property of the shareholders, who not only owned the business, but with little criticism or opposition were permitted also to determine what forms of service they would arrange to offer to the public, what methods of performing the various functions of service they would select and set up, what were desirable types of development and what were not, what rates they would demand for their service when subscribed to or purchased, what compensation and hours of labor they would assign to their employees, and, in a general sense, pretty much everything else that concerned their daily performances; whereas nowadays all this is completely changed and the present-day point of view is that the furnishing of telephone service and all other forms of public utility, such as railroad transportation, supplying electric light, furnishing gas and water, transmitting intelligence by telegraph, and so forth, are all functions of a public service character appertaining to the common welfare of the general public as a whole and to the various members of the public as individuals, and that the companies engaged in furnishing and rendering this sort of service must regard themselves absolutely as trustees for the public, conducting the various functions of service to the entire satisfaction of the public, and by ways and means approved by the public and in degrees and by methods desired and demanded by the public, and all at rates and prices that shall return only a fair, proper amount of profit upon the legitimate investment necessary to their promulgation.

You will see the very radical difference between the old point of view and the new. In the old days these public service companies were, in a certain sense, merely incorporated merchandising concerns, soliciting from the public the purchase by the public of the goods they had put on their shelves and in their storerooms for sale to

the public. Nowadays the requirement is that they shall be the expert furnishers of particular forms of specialties and services which the public themselves command them to put upon their shelves for their consumption.

This modern and generally adopted point of view has found Serious Times expression, first, in the creation of the Interstate Commerce Commission which has been charged with the regulation of all public utilities in their interstate operations, and, secondly, in the creation in almost every state in the Union of Public Utilities Commissions having similar control and jurisdiction over those public service companies operating within the several states themselves. As showing the deadly seriousness of this tendency for having every phase of our business passed upon by these Public Service Commissions, it will probably surprise you to learn that during the eight months of this year ending with September there were no less than 366 complaints made before the New York State Commissions alone against our neighboring company in that state, which had also to justify itself in no less than twenty-six additional cases brought before the New Jersey Commission, and four before the Interstate Commerce Commission.

I have said that these are for us serious times. It is difficult to overestimate the expense which this sort of thing involves to the defendant company; it is difficult to overcalculate the heavy drag put directly upon the organization in the preparation and presentation of the facts required by the Commissions in the consideration of these cases. The moral of all this is clear: it is not enough to avoid evil, we must avoid the appearance of evil. We must conduct the business and administer its details in so open and frank, so sensible and so pleasing a manner, as to obviate all necessity for our patrons having to go to these Commissions with petty complaints and ill-considered criticisms.

While doubtless after the first of next year, when the newly created Pennsylvania Public Utilities Commission becomes operative, we may in the very nature of things look for a certain number of annoying cases that are almost sure to be brought before them, of real or imaginary grievances by persons eager to avail themselves of this new and so-easy means of airing them, and incidentally of having their fling at a big corporation, still it is extremely gratifying to know that in the eight months ending with September there were but twenty-eight complaints made against The Bell Telephone Company of Pennsylvania and its Associated Companies,- five consisting of matters brought before the Interstate Commerce Commission, nine being New Jersey cases. and only fourteen being cases that were brought before the Pennsylvania Railroad Commission, the old public utility body of this state which has been superseded by the new Public Utilities Commission recently appointed by the Governor.

Now I want to make very clear at this point that the necessity which confronts us in connection with all this is, in my judgment, not a demand for any grand reformation of our ways nor the necessity for undoing all we have done in the past in order to substitute therefor some other structure of telephony better suited to this year of grace 1913, but rather, as I see it, what we must do is constantly to seek to shift our course here and there to conform to the demands, necessities and desires of our patrons, take up an inch of slack in this direction and improve our practice in another, and so polish off, round out and perfect our scheme of service as to make it more constantly conform to their wishes and requirements. This is a tremendously complex age in which we live. Life is lived to-day $_{\rm more}$ strenuously and more nervously than it has ever probably been lived in any past age of the world and while the coming of the telephone and its spread into universal usage has in no small war helped to make these very complexities and this nervous high-tension possible, it still remains true that by its perfection much can be accomplished in the way of making the very conditions of life which it has helped to create more and more comfortable and intelligent. Two things are absolutely essential to this,—the one, as I have been saying, being the ever present requirement that we should carefully attune ourselves to the public needs, demands and necessities, and the other being that we should make very sure that the public thoroughly understands us, our earnestness, our whole-heartedness of purpose, our capabilities and our possibilities, and our limitations as well; for even in a magical business like ours there are—and I suppose there will always bedistinct limitations which should be just as frankly admitted by us and understood by our patrons as our good points should be emphasized by us and utilized by them.

Sometimes when I go over the daily contributions of press clip-Criticisms pings and not infrequently read the thoroughly prejudiced, irresponsible, unfair criticisms that are made concerning us in the public prints, I ask myself how it is humanly possible in a white man's country-where fair play and a square deal for all are admittedly the great foundations upon which our civic and social organization was conceived and has been expanded—for the very evident background of suspicion, distrust, and even sometimes of apparently real dislike, to exist concerning us in certain quarters, in the light of the long years of faithful, unselfish and oftentimes heroic service which our organizations have performed for the public who so criticise them. It seems to me that herein lies a tremendous interrogation. It seems to me that this query is totally different from the query that springs to mind from an examination of the letters containing the complaints of individual subscribers. Here in this latter case one realizes that the hot words that are sometimes said and the unfriendly and sharp criticisms that are sometimes made grow out of individual instances of error, carelessness, indifference, inattention or insufficiencies on our part, coupled with the very natural tendency on the part of the person aggrieved to exaggerate his own aggrievement: and while the study of these files is truly productive of a profound conviction that we are as yet by no means perfect, still we have the comforting knowledge that they are distinctly the exception and never the rule, and that for every one thing that goes wrong in our relations with our patrons, we perform a hundred or a thousand acts of thorough-going execution that yield us an average of performance of which we are justfieldy proud. One would reasonably suppose that after all these earnest years of unremitting to and faithful service on the part of the great army of workers who make up and carry on the telephone work of the country,—a service that has long since established itself as perhaps the most intimate and certainly one of the most inportant upon which the people depend for the efficient conduct of their business and the comfortable operation of their social economies. that the Telephone Company would have come so close to the people and their workers would have achieved a place of such real approval if not of really positively affectionate regard in the minds of the public, as to make absolutely un popular if not entirely impossible the very evident hostility, suspicion and criticism that s



altogether too prevalent and widespread not to have to be recognized and dealt with. I have given long, serious thought to this problem, and in my judgment there are a number of reasons why we have failed to win for ourselves this sort of relationship in our various communities. Some of these reasons are inherent to the peculiarities of the human being, and this, I take it, works both ways, in that we shall always suffer from the imperfections of our critics as well as by reason of the shortcomings of our own agencies; but I read in the very fact that these conditions do exist, after all these years of honest effort on our part, the absolute requirement that we should redouble our efforts towards so winning the friendship of the public as to reduce them to a smaller point each year until we shall arrive at a time when the American people shall speak of us a thousand words of approval to every word of criticism.

How are we going to do this? Winning Public There is a story indicative of the Approval changing conditions to which I have previously alluded. In the olden days when a voung man sat beside his best girl on the parlor sofa, the old grandfather's clock would quietly and slowly tick its dignified message from the corner of the room—"Take-your-time; Take-your-time; Take-your-time." Nowadays this sort of excitement usually takes place in much smaller quarters where very likely a little, impertinent French clock on the mantelpiece ticks out-"Get together! Get-together! Get-together!" And it seems to me that in the message which this little French clock ticks out lies our best solution of the pressing problem to which we are now so earnestly committed: We have simply got to "Get-together." The American public have issued their decree in unmistakable language; the telephone business is now, as I have already stated, everywhere regarded as a full-fledged public utility. State Commissions, as I have pointed out, have been created in almost every state in which we transact business, for the regulation of the telephone in conjunction with other forms of public utilities. The public proposes. and is not to be gainsaid in the matter, that this telephone business shall be conducted hereafter under the supervision and direction of these Public Utility Commissions, and we must come to regard ourselves, if there are any who have not already done so, as truly the stewards and trustees of the public for the carrying on of this business for them in every possible sense of the word. It is no longer a question of first of all what our rights may be under our charters; this must fall hereafter entirely as secondary to the bigger question of what our duties are to the public. To a great extent the day has gone by when we may consult our oven convenience first and the convenience of our customers afterwards. new order of things must be-the public convenience first and our own convenience second. We must remember that a new gospel has come into being; the old French code of Noblesse oblige is now literally and definitely construed to apply to the big units of modern business; the larger they become, the greater the necessity for their being perfect; the more powerful they become, the greater the requirements upon them that they shall serve, and serve humbly and effectively. For my part I consider that this is altogether right; the only regret that I have concerning our situation to date is that the whole of the public does not know us as the earnest, honest body of men we know ourselves to be.

Commission Regulation

From one point of view it seems to me to our ultimate advantage that this Commission regulation

should come into the field, for I cannot see how it is going to be possible for the Commissions to fail in the long run as a medium for correctly placing us before the public, quite as much as being the means through which the public will seek to amend our forms of service from time to time if we fail sufficiently to sense their necessities and desires to change them ourselves. The telephone business makes in its very elements a requirement for an enormous organization, and it seems to me that in view of the industrial and commercial history of the last twenty years, which has truly contained many instances that have thoroughly justified the suspicion of the public for "big business,"—it seems to me that we almost need the approval of these people's bodies, these Public Service Commissions, in order to be guaranteed a feeling on the part of the people that we are a properly conducted unit in spite of our enormous size.

There is a lot of meat in the story of the country constable whom a gentleman passing through a certain town accosted with the request to change him a ten-dollar bill, upon which the constable, throwing back his coat, exposed badge and announced, "I am the constable. By you are pinched!"-explaining to the Gosh! judge, who later asked him the charge against the person, that he considered that any man who had so much money was a most suspicious character, adding, "God only knows, Judge, where he ever got it."

This used to be in a sense the essence of the public attitude regarding a good many of the over-expanded and over-financed units of commerce and industry which the last decade produced so prolifically; but we in this business, who know the thorough integrity of its organization, the sound honesty of its financing and the earnest administration of its business, are resting firm in the belief that investigation and examination, if properly and impartially made, can only result in the stamp of official approval.

We go along from day to day, How We each one endeavoring to fulfill his Appear to Patrons little part in the conduct of the service; we study our reports; we seek the comforts which the good showings we make afford us; but I wonder if we sometimes do not fail to ask ourselves just how we appear to our customers and patrons. Not long ago I was in a modern hotel in one of the inland cities of Pennsylvania where the restaurant service was performed by young women instead of the usual men waiters. I was having dinner with a friend, and after dinner I asked him what sort of a cigar he would like, to which he replied that as he smoked only a limited number of cigars, he wanted them of good quality. We asked the waitress whether they had any imported cigars in the hotel. She said she did not know but that she would go to the cigar stand and find out. She presently returned with the information that they carried two kinds, Romeos and Julietas, asking us which brand we preferred. Now this seems incongruous when recited as an actual incident of service rendered in a thoroughly modern, highpriced hotel in an up-to-date and important city of Pennsylvania, but here is another truthful anecdote of a happening in a still larger and still more important inland city of Pennsylvania which occurred not so very long ago in connection with a luncheon at which I was host to half a dozen of the important men of the town. We had finished luncheon and I told the waiter to bring me a certain kind of cigar which I knew ought to cost fifteen cents apiece. He brought the cigars in due course, but when I received the bill I found the cigars had been entered at fifty cents apiece. I protested to the waiter that there

was an error in the rendering of the bill, but after taking it to the attendant at the cigar stand. he returned with the assurance that the man had said it was right. I then excused myself to my guests and went personally to the attendant at the cigar stand for an explanation of his exorbitant charges, and to my amazement the man picked out the box from which he had taken the cigars. closed down the lid and showed me the internal revenue stamp affixed to such a box containing fifty cigars, and, pointing to the figures "50" on the stamp, said to me in a tone of absolute final-"There is no mistake about the price, sir; here it is plainly marked on the box. grateful that I had not selected a brand of cigars that were packed in hundreds.

Now perhaps you may also smile at this incident which also seems a thoroughly incongruous happening to have encountered in a modern restaurant in an up-to-date city of an important section of Pennsylvania, and you may say, "This may have happened to you in connection with hotel administration, but show us a parallel instance equally lacking in sense and growing out of the conduct of our business." I could give you a hundred that have come to my notice in the ordinary range of the business in the very immediate past. The other day a patron who has a contract with us for eight telephones located around a certain mining section, all administered from one office and all contracted for and paid for by one concern, sent men, with the kindest possible letter, eight envelopes which had come to him in one mail, containing eight bills, eight return envelopes and eight sets of Mr. Vail's recent pamphlet on "Mutual Relations," and he asked in his letter whether we did not think that it would be more sensible to inclose his eight bills in one envelope (saving seven needlessly wasted stamps), with one return envelope (instead of eight), and to present him with only one copy of the little pamphlet in question.

The other day a subscriber became so thoroughly perplexed over a statement of our account which had reached him that he mailed it in to the head office with the urgent plea that we couch our bills in the English language in such a way as to be readable to our customers. item on the bill read: "Adj. loc. ser. \$19.85."

Not long ago a leading physician moved for the summer season from a big city where he had a most important practice to the very center of a really important suburb adjacent to the city. He rented a house that had never had a tenant, who had not made use of the telephone, and he gave us ample notification of his intention to move and asked us to arrange to have a telephone installed there in anticipation of his arrival. It was exactly thirty days after his arrival that the doctor obtained the telephone he desired and

Not long ago a certain mechanic whose services were of the greatest importance to his community moved from one street around the corner to another street, giving us ample notice of his intention to move and asking us to move his telephone in order to meet his requirements. It was not until he had been in his new location four or five days that our men appeared upon the scene at all for the purpose of running the drop loop, and when they had done this they left without installing the telephone, which as a fact was not installed and connected up for some seven or eight days thereafter.

Last month a patron whose service had been temporarily disconnected for the summer season took the precaution to write us seven days ahead of his return to his residence, asking us to reestablish his service on the morning of the day

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of his expected arrival. We failed to have his service reëstablished as he had asked, and an investigation of the reason for the delay brought out the fact that his letter had been held by one of our employees, unopened for six days, resulting in a very unnecessary amount of inconvenience to the gentleman and his family, they being without service upon the reopening of their home, at which time of all times they particularly needed and wanted it.

Do you say in all sincerity that there is anything less incongruous as coming out of this big, supposedly-effective organization, in these three or four instances that I have related, than in the question of that waitress as to whether we pre-

ferred Romeos or Julietas?

There is a tremendous benefit to be derived from a frank discussion of the sort of thing I have just instanced. We as a company, as a furnisher of public service, in the case of that doctor not only harassed and annoved him and his family by the absence of the telephone they had learned to depend upon and which they had ordered installed in ample time for their needs, but just think of the criticism we brought upon ourselves at the hands of his patients, most of them probably patrons of ours, who by reason of our failure to connect him promptly were prevented from reaching their physician over their own telephones. We not only interfered with the business and the comfort of the mechanic I have mentioned, in failing to meet his moving requirements promptly, but our failure in that case resulted in dozens of inconveniences and real hardships to important patrons of ours in his community, who by their inability to reach him over their own telephones, blamed and criticised the Telephone Company for not taking proper care of its business.

Imagination in Business

There is the very greatest demand for imagination in business, and it seems to me that if we who are supervising these matters for the Company would just try to imagine some of the consequences of our delays, we would tremble in our boots for being responsible for bringing them about, and I cannot help but think that many of these things would never occur if we would just look beyond the things themselves and anticipate their results.

I was lately impressed by two little anecdotes contained in an article by Edward Hungerford in the Saturday Evening Post of September sixth last. The article dealt with the difficulties of the job of the ordinary railroad conductor. The anecdotes seem to me to be so typical of the value of imagination in business that I call them to your attention herein. The first one is as follows:

"A man—a nervous, tired man—was bound east through the State of New York upon the Lake Shore Limited. His destination was Kingston, a little town upon the west bank of the Hudson River, almost halfway between New York and Albany. The route of the Lake Shore Limited was a little more than thirty minutes without a stop between Albany and New York. Anyone who knows the Hudson Valley well knows how atrocious are the facilities for crossing the river at almost any point between these two cities.

"The man planned to catch the last train of the afternoon down the West Shore Railroad to Kingston. Under normal conditions he had about thirty minutes' leeway in which to make the change; but on this occasion the Lake Shore Limited was a little more than thirty minutes late and he did not alight at Albany—he had no wish to hang around there until sometime in the early morning. He decided he would go through to New York, cross the city from the Grand

Central Station to Weehauken, and then go through to Kingston on a night train. That meant one hundred and eighty extra miles of travel; but the man was in a very great hurry, and with him time counted more than miles.

"As his train swept across the bridge and out of Albany the train conductor came through. He was a round, genial-faced fellow, typical of that other generation of train captains that one often finds upon the older railroads of the land; and the man from Kingston halted him—told his story very much as we have told it here.

'I didn't know if you are going to stop at Poughkeepsie for water, but I might slip out somewhere,' he ventured. 'That would leave me less than twenty miles from home.'

"The conductor did not hesitate.

'We don't stop at Poughkeepsie for water or anything else,' he said. 'But I'll stop at Rhinecliff for you.'

"Rhinecliff is on the east bank of the Hudson directly opposite Kingston. That seemed almost too good to be true—and the man rather incoherently stammered out his thanks.

'I didn't think you would stop this train for anybody,' he said quite frankly. 'The time-card doesn't—'

'This train stops for the accommodation of the patrons of this road,' interrupted the conductor, 'and I'm its high judge. You lost out on your connection at Albany through no fault of yours. It was our fault and we are doing our best to make it up to you.'

"Consider the value of such a man to the organization that employs him. That one little act was worth more to the big railroad whose uniform he wore than a ton of advertising tracts or a month's service of a corps of soliciting agents. The Kingston man crossed the river from Rhinecliff in a motor boat, and thanked the road and its conductor for the service rendered him. He was a large shipper and his factory in the western part of the state was in a hotly competitive territory; but the road that through the good sense of its employee had saved him such valuable time, to-day hardly knows a competitor in his shipping room."

The second one is this:

"A man took a trip a year or two ago from New York to Chicago. He went out on a famous railroad, well conducted, and returned on its equally famous competitor. Each road had just conquered a mighty river by boring an electrically operated tunnel under it. The tunnel had been well advertised and the man, whose mind ran to a mechanical turn, was anxious to see them. In each case the train bore a wide-vestibuled daycoach as its last car.

"In the first tunnel through which he passed he went to the rear of the daycoach with the intention of taking a look at the under-river bore. He wanted to stand at the rear of the aisle and look through the door at the electric-lighted tube. But the conductor anticipated him. He drew down the sash-curtain of the car-door.

'Sorry,' he said; 'but the company's rules prohibit passengers from standing in the pieles'

"The man did not argue the point. He bowed dutifully to the strong arm of the rulebook and went back to his seat. But how different was the case on the other railroad—by which he returned from Chicago! This second time he went to the rear of the train expecting another rebuff; but the road and its conductor were of another sort. This second conductor was fastening the outside doors of the vestibule at the rear of the last car and saying to the little group assembled there:

'If you will wait a moment I will give you a chance to get out on this rear platform and see the big job we've been working on so long. We are all of us mighty proud of it!'

"How much of an asset do you suppose this conductor was to his company?"

It seems to me that the great Pleasing the big lesson of the times is that we **Public** have got to please the public. There is no doubt that by far the greatest proportion of reactions which the public mind ohtains in its dealings with us comes to it through the handling of the service on the part of the employees of the Traffic Department. There is all the difference in the world between courteous amiable operating and hard-and-fast impersonal operating by the rule of thumb. Our Traffic Department is making enormous efforts to bring about this accommodating, courteous type of operating, which will go far in creating the pleasant and friendly reactions on the part of our patrons and customers that I am striving to emphasize as tremendously necessary to the success-

ful conduct of our business. Mr. Lynch, the General Superintendent of Traffic, recently said to me: "The Traffic Department is proceeding with a full realization and appreciation of the fact that there is, first of all much that must be done to improve its service technically. By improving its service technically I mean correcting many operating defects that now exist with a view to making the service speedy, accurate and dependable. The answers to subscribers must be up to the standard of speed without undue fluctuations, the connections must be completed in accordance with standard time elements and with the fewest possible errors or irregularities, and answers must be given to recall signals with speed and certainty. We appreciate fully that these technical achievements form

the basis for all good telephone service.

"But back of and over and around all this striving for technical improvement the Traffic Department is proceeding with a full realization of its duties in certain other general directions. It is striving to keep ever before it—

1. Its full duty to the public.

2. Its full duty to its own and other employees

of the Company.

'In order to perform its full duty to the public it must take part in rendering telephone service which is service in the best sense of the word. It must take part in rendering service which is not only technically speedy and accurate, but is, above all, cheerful, courteous and accommodating. The members of this department must so understand and so perform that they shall give to the public the impression that it is dealing with an organization which holds itself in readiness for the full performance of a public service. In answering calls, its operators must so answer and so repeat the order as to conver the impression of sympathetic understanding. In recording toll calls, they must so record them as to convey to the patron the impression that we are glad to have his business and thank him for it. In rendering reports on uncompleted calls, they must so render them as to convey the impression that we regret any obstacle that prevents the immediate carrying out of the patron's wishes. and indicate that we hold ourselves in readiness to overcome the obstacle with the least possible Even in telling the time of day, they should so tell it as to convey the impression that the subscriber is welcome to the information.

"In performing its duty towards its employees the Traffic Department is striving to build up a cheerful, contented force whose individuals shall sincerely and truly feel glad that they are a part

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of this great organization. It is striving to arrange schedules of hours and pay as to make its positions desirable and ones with which its employees can feel satisfied. It is striving so to provide quarters and surroundings as to make these quarters and surroundings healthful and cheerful. It is striving to accomplish results by leading its employees rather than by driving them. It is striving to get its employees to feel that it is a part of their individual interest to see that some snap is gotten into the telephone service rendered by The Bell Telephone Company of Pennsylvania and Associated Companies.

"A great deal needs to be done in all the above directions; but the department, from one end to the other, is buckling down to these responsibilities with a full measure of determination and loyalty to win out along these lines."

It seems to me that with a Traffic Department in the hands of a gentleman like Mr. Lynch, with a splendid traffic policy like the one I have just quoted, we may rest assured that the vital function of our business which they perform is going to be made to please our patrons.

It seems appropriate at this point to dwell for a moment upon the thought that, after all, satisfactory service cannot be rendered exclusively by the Traffic Department, no matter how broadminded its policy may be nor how splendidly it performs its portion of the work, unless we are able to get a proper coöperation from the public themselves. Every member of the Company should constitute

A Missionary himself a constant missionary for drilling into the minds of our patrons the fact that they themselves are an integral factor in the rendering of first-class telephone service. Prompt answering of the telephone, careful giving of numbers, adequate facilities, courteous manners in dealing with our forces, an avoidance of undue impatience,—these are only a few of the things which the public on their part must furnish as their contribution towards good service, and it is absolutely impossible to overstate their importance and value in the desired result. There is a wonderful amount of work to be done in this direction. There is entirely too much evidence on all sides of an impatient, intolerant attitude on the part of our patrons, who sometimes make one think by their criticisms and manners that they regard the rendering of perfect telephone service as the easiest thing in the world if we only wanted to do it; leading one to feel that their idea is that the only reason they do not get instant responses every time, or immediate connections with numbers called for, is because somebody in the Telephone Company is indifferent or lazy This is all totally wrong and not "on the job." and it is clearly and squarely up to us to change this sort of thing by patient and unceasing coaching and education of the public into an appreciation of the inherent difficulties surrounding the rendering of first-class telephone service, and a profound realization on their part of the very important share which they themselves have in the matter. This we should do, it seems to mc, by a constant, frank admission of our limitations coupled with a constant, earnest emphasizing of our high aims and purposes.

Public

There is no one thing that I know of that will go further towards bringing about this desired result than a continued bringing of the public into our operating rooms so that they may see for themselves something of the serious. dignified work going on at the switchboards, and come to understand, first, the highly specialized and intricate character of the business of switching and answering their calls, and, secondly, something

of the tremendously earnest efforts that are being made by our operators in the performance of their work.

I have previously reminded you that progress spells "change." It should also spell "improvement," and it is interesting to note a few of the typical improvements we have been able recently to accomplish. I have made no serious effort to collect these; no systematic attempt to present them; preferring rather to ramble along and name you a few here and there as they come to mind.

There is this, for example, told me by the Auditor:

"A year or so ago it was the practice of the Accounting Department to assign to each subscriber's ledger bookkeeper an average of 2000 accounts. Each bookkeeper was called upon to make all adjustments due to change of contracts, etc. A new employee became familiar with the work only by actual experience, which necessitated that a new bookkeeper be assigned to a ledger with practically no experience. This resulted in a considerable number of errors occurring in the adjustment of accounts.

"It was found that by assigning the work of adjusting accounts due to changed contracts, and billing disconnected service, to special clerks, the number of accounts to be handled by the subscriber's ledger bookkeeper could be increased from 2000 to 3000, and the adjustment of accounts being in the hands of experienced people, the work was thereby rendered more efficient.

"The special clerks charged with the adjustment of accounts were bookkeepers who had previously proved their efficiency. The net result of this is that the public is benefited by reason of receiving more accurate bills; the Company is benefited by reason of the economies effected; and the employees are benefited because it makes possible promotions of bookkeepers showing special fitness for more responsible positions as special clerks."

A radical improvement has just been accomplished in this city in the matter of collecting from automatic stations. The old arrangement was that the coin-box stations of the city were routed according to their locations, each route containing about 55 stations. It was impossible to arrange the routes economically so that they converged at the office. On account of this condition collectors were working in all parts of the city at the same time on different routes. A great deal of time was lost in traveling between the routes and the office. A new arrangement involving the use of an automobile was adopted in order to save as much as possible of the time and expense lost in traveling to and from the office. Under the present arrangement the city is divided into approximately twelve collection districts. Many of these collection districts, located in the center of the city, are collected from several times a month. The arrangement contemplates that the collectors will be working in the same district or section of the city at the same The wagon meets the collector at an appointed time and place several times during the day. Collectors who formerly were able to make sixty collections a day now make 102 collections a day, the increased number of collections being possible because of the saving of time in returning to the office.

Other uses of automobiles that have proved of great advantage have been made by the Plant Department. For example, by the use of automobiles the Atlantic City District recently cleared in one day station troubles which, without the use of automobiles, would have required three days.

And again, by the use of automobiles the Com-

pany has been able to save valuable time and money, as in the case of the three- and five-ton cable trucks lately acquired by the Plant Department. The five-ton truck especially, although a recent acquirement, has already pointed out its great value. By its use 1500 to 2000 feet additional cable can be put in place over that of the three-ton type. Also two carloads of cable can be unloaded in a day, where formerly one carload was the limit of the three-ton truck. When one considers that these operations do not require any additional men, it can readily be seen that no mistake has been made in its adoption. In cases of cable trouble, owing to its special construction and power, defective sections are handled much more quickly and service is restored in a much shorter space of time.

Again, here is interesting and eloquent testimony of progress and improvement. A recent study in Philadelphia showed that during 1912 the average time for completing installations was 9.85 days, while the average completion of installations thus far for the year 1913 has been 7.77 days. This is largely due to improved methods in the distribution of subscribers' station equipment delivered from a central storeroom, as a result of which studies taken for two typical weeks with the volume of orders on hand showed that with 1681 orders available, 218 men, including seven apprentices, completed 725 orders in the 1912 week, as against a completion of 1005 orders out of 1439 on hand by 224 men, including twenty-four apprentices, in the corresponding week of 1913.

This is, however, a field of effort in which I may state there will have to be still further improvement if we are to succeed in pleasing and satisfying our patrons. When a man wants a telephone he usually wants it promptly, and promptly we must manage to let him have it.

Forward Steps Here are a few recent forward steps taken by the big Philadel-phia business office at 1230 Arch

Street

First.—Letters are acknowledged the day of their receipt, and, if possible to do so, are disposed of on the same day. If it is necessary to refer a letter to one of the men on the street, the man is required to see the writer of the letter on the same day it is referred to him. This practice has done much towards bettering the feeling between the public and the Company.

Second.—The practice of making a record of telephone messages and visits to the Business Office has been adopted. This practice has been a big help towards insuring the proper handling of subscribers' requests. In addition it gives the office a complete record of all our dealings with the public, no matter how trivial.

Third.—The issuance of orders in advance of securing subscribers' signatures to contracts has hastened installations from one to five days. The former practice of mailing the contract to the prospective subscriber, and awaiting the return of the signed form before issuing the line order, caused considerable delay, and when under the old practice it was necessary to have our representative call on the applicant to secure his signature to the form, delay was frequently caused by the inability of the salesman to see the applicant.

Fourth.—Our correspondence file a year ago allowed us space for filing three months' correspondence only. New files were secured, and we are now able to keep an accurate file of eighteen months' correspondence. This has proved a great help in properly handling matters with the public.

Fifth.—By the adoption of the practice of



centering the responsibility of inspecting all contracts as to their correctness upon their receipt in the Business Office, to catch any errors made on the forms before the line orders are written, and, likewise, by the centering of the responsibility of passing upon line orders after they are written and before they are forwarded to the Plant Department we have accomplished a great reduction in the number of errors previously made. By having the contract file absolutely correct, clerks in the office dealing with the public are able to handle inquiries and requests much more promptly, due to the fact that correct contract information can be secured without loss of

Sixth.—In the past year the correction line orders have been decreased from 18 per cent. to 9.4 per cent. This is due to more efficient work on the part of the salesmen, clerks, and everyone coming in contact with contracts prior to the delivery of line orders to the Plant Department. By improving in this direction we of course saved a great deal of time in the installation of such orders, which is a help to the public.

That our increasing efforts at Constant improved collection conditions are Improvement bearing fruit is evidenced by the following: During the year 1912, of the amount Lilled on disconnected accounts, we collected in cash 27.9 per cent. For the first six months of 1913,—notwithstanding the fact that the amount billed on disconnected accounts was largely increased by reason of charging shortterm rates in all cases of disconnection within the first year of the contract, including disconnection for non-payment and for abandonment of premises,—of the total amount of final accounts disposed of, there was collected in cash 30.3 per cent.; and as indicative of the promptness with which subscribers now pay their bills, the percentage of active accounts outstanding at the end of the month to new revenue billed each month has been reduced from 31.4 for 1912 to 29.3 for 1913.

The following will show you how the sales forces are bettering their showings: During the first eight months of last year the sales force of approximately 293 salesmen accomplished a gain of 18,849 stations carrying \$495,559 of contract revenue. Our gain for eight months this year, accomplished by a sales force of approximately 305 salesmen, amounts to 28,405 stations carrying \$693,898 of contract revenue,-an improved showing of 9556 stations and \$198,339 of contract revenue with an increased force of only twelve persons.

The central testing table, known as the Central Location Bureau, installed at Seventeenth and Filbert Streets, has proved a time- and moneysaver for the Company. Since its introduction, cable trouble is handled more efficiently and more quickly; the interruptions to service are cleared in a shorter interval than by following the old

The innovation of employing dry air in the testing of new cable has been found of great value. It has been used with the utmost success in testing for mechanical defects in the wiping of joints; joints which before would readily bear the inspection and approval of the inspector are now found to have defects which might often result in wet trouble. The Plant Department believes that in the near future it would not be unreasonable to expect this dry-air machine to be able to keep, under certain conditions, a cable in service which has partly failed until new cable can be installed, oftentimes saving interruption of service to subscribers or on trunks.

In all cases where cable is pulled into conduit

it becomes necessary when the rodding is being done to use steel wire. This wire is used to pull in the pulling rope, which in turn pulls the cable into place. On various occasions when this wire was pulled out, it was necessary to leave it stretched along the street to the extent of from 400 to 500 feet. This required watching with the utmost care for the prevention of accidents to passers-by. During the past summer a new machine was designed and came into use, known as the "Wire-Pulling Device," which pulls wire out of ducts and at the same time reels it up. This is set close to the manhole, not only doing away with a dangerous condition, but keeping the wire in first-class shape so that it may readily be used in the future.

I will only pause long enough concerning the never-ending campaign of fire-prevention, greater security of employees, storm-proofing of plant and permanence of toll lines, in which the Engineering, Plant and Traffic Departments are always engaged, to say that in no year that I can recall has so much been accomplished as has been done of late. And we must not forget the recently adopted Pension and Benefit Plan.

I often wonder if our critics, Tell the Public the public, ever learn a tenth of all we arrange and accomplish for them along these lines. If they do not, then it is our own fault; we should tell them all about it, not in any spirit of boastfulness, but in a quiet, convincing way that will force upon them an appreciation of what it all means to them and a cordial approval of the enterprise that lies back

of it.

I want to offer for your consideration a suggestion. When we make mistakes, whether they be made at the switchboard or in the office or in the field, the person who makes the mistake should report that fact to his or her boss, as the case may be, without the slightest fear, in order that the supervisor may make it his or her immediate business to get in touch with that patron and by an expression of regret or a proper explanation, if called for, reëstablish and cement relations of goodwill and complete understanding. When a job grows to such a point that its details are too large to permit of their handling with a due regard for the reactions created upon our patrons, say so frankly to your boss, who should make it his business to see that a proper rearrangement of the load is made so as to maintain a maximum of satisfaction on the part of our patrons in their dealings with you.

There is, in a growing business like ours, the utmost necessity for a constant reviewing at the hands of the supervising people of the organization, each group or unit which constitutes part of their organized forces, in order to make certain that each job is being manned by people best suited for that particular work. One of the great business organizations of the day is the Eastman Kodak Company, of which organization it is said that very few employees are ever discharged. If a man doesn't fit in one place, he is tried out somewhere else. If he eventually slides down and out, it is his own fault; he has been given every possible chance in not only one place but perhaps a dozen. If a man or a woman in their organization is capable of doing better work and more of it in some other position than the one which he or she occupies, the company coöperates with the individual to bring this about. This is good modern practice.

The work of the business must go on demanding of the various members in the organization the most loyal effort, and in the constant opportunity for personal advancement and promotion the one thing to bear in mind is the fact that the increasing demands bear not only upon the busi-

ness as a whole and the form and character of the service which it renders to the public, but also upon each employee for a constantly better administration of his own duties and responsibilities. I would even go so far as to say that when promotion comes to a man it is not enough for

him to succeed his present boss Concerning and do as well as he did, but it Promotions is incumbent upon him, and literally expected of him, that he shall do a better job than his boss used to do.

There is another matter in which I strongly desire to do a little missionary work. I have in mind the number of changes constantly occurring in our organization, that new officials come into authority from time to time and that hundreds of new faces appear from year to year. and I am often impressed with the feeling that if the junior members of the organization would only speak to the officials when they meet them on the street or pass them in the buildings it would go a long way towards helping us to know each other, which is very essential to the maintenance of the esprit de corps we have been so proud of in the past and which we should so jealously safeguard for the future.

I find that I have exceeded the time I had allotted myself for the purpose of presenting my paper to-night, and I am reminded of the story told of an Irishman who was discussing the proposition of closing the village saloons at half-past ten. Said he: "Oi shouldn't mind mesilf if they closed them up a couple of hours sooner; what Oi says is, if a mon ain't full by half-past ten, he ain't half tryin.'" Now I feel that if I have not succeeded in showing you something of what I conceive to be the signs of the times, it is not because I have not tried, and so I am ready to join you in what I am sure will be your unanimous vote for an early closing of my paper.

I firmly believe that we can meet the demands that are upon us, and by the excellence of our service, coupled with our education of the public to a proper understanding of our merits as well as our limitations, bring about an abandonment of the present agitation for Government ownership of the telephone, which from my point of view would be a real catastrophe to the country, no nation in the world having succeeded up to the present time in successfully and economically operating its telephone service for its people; and what we have to do, it seems to me, is to continue to tackle the daily problem with good cheer and a grim determination to keep on "getting there." Charles Kingsley has said: "The men Charles Kingsley has said: "The men whom I have seen succeed best in life have always been cheerful and hopeful men, who went about their business with a smile on their faces. and took the changes and chances of life like men, facing rough and smooth alike as it came."

It is no easy task to please the Our Duty public. Perhaps when it has to be done as a constant and continued operation, it is just about the hardest task that the hand of man could be set to, but I believe that it can be done and I believe that this splendid organization of Bell Telephone Companies is going to do it. Someone has written:

"There are thousands to tell you it cannot be done.

There are thousands to prophesy failure: There are thousands to point out to you, one by one.

The dangers that wait to assail you; But just buckle in with a bit of a grin, Then take off your coat and go to it; Just start in to sing as you tackle the thing That 'cannot be done,' and you'll do it."

Digitized by







THE TELEPHONE NEWS

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania
The Central District Telephone Company
The Delaware & Atlantic Telegraph & Telephone Co.
The Diamond State Telephone Company

H. F. THURBER, VIOS President FORD HUNTINGTON, VICS-President L. H. KINNARD, Second VICS-President and General Manager W. S. PEIRSOL, See's sell of misup't J. L. SWALZE, General Auditor J. H. CROSMAN, Jr., Cen'l Comercial Sup't J. L. SWAYZE, General Autorney J. C. L'NRCH, Gen'l Sup't of Traffic W. T. LA ROCHE, Gen'l Sup't of Plant J. H. HONS, Auditor S. H. MOORE, Counsel

Managing Editor, R. C. MASON, 17th and Filbert Streets, Philadelphia, to whom all communications should be addressed

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Vol. IX NOVEMBER 1, 1913 No. 21

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THE Athletics won, as we expected they would, and we're settling down again prepared to attack our winter's work with renewed vigor and efficacy. Connie Mack's men won because of their team-work, and there's a bit of a lesson there. Every man on his team plays wonderful baseball, but each man places teamplay first. So does "Ty" Cobb, who is on another team, play wonderful baseball; but "Ty" often places team-work second to his own playing.

Get the point. Team-work was worth to each of Mack's players \$3243.92 for

winning the World's Series.

Maybe you are saying, "What's this to me?" and here's the answer: "Individual work is great, simply great, but teamwork pays."

One way of obtaining team-work is to join your nearest Telephone Society and thereby get together with that Plant man, that Traffic man, that Salesman or that Accounting man you often talk to but have never met.

Our societies have started and the good day of New Year's resolutions is almost here; but why not check up that personal inventory of yours to-day to see if you are neglecting to attend, or maybe even to join, that team-play-developer, a Telephone Society?

Ghosts

O you believe in Ghosts? I don't mean the Ghosts that you mean. Not the one which walks around every Friday personified by a slick chap from the Paymaster's office. Nor do I mean the Ghosts which will rise again in our dreams this fall after we've eaten our fill of that old reliable indigester, mince pie.

I mean personal Ghosts. Are you ever unfortunate enough to be chased by your own Ghosts? If so, read what a writer in

the Public Ledger, Philadelphia, says about them:

"Most of us are victims of Ghosts. Ghosts that scare us, Ghosts that rile us, Ghosts that show their teeth at us, Ghosts that scold us, Failure Ghosts, Regret Ghosts, Lost Chance Ghosts, Idea Ghosts, Mistake Ghosts, and many, many others. And yet, after all, Ghosts are but Phantoms.

"The only useful purpose Ghosts ever serve is to whet Courage and make Wills dominant.

"Don't dodge your Ghosts. Walk right up to them. Shake hands with them. Let them realize your Power over them.

"Ghosts always tag along and about, seeking through the minutes to nag the earnest, smiling progress of real Doers.

"But have none of them.

"Meet-but RULE your Ghosts."

This Applies to Us

Mass. His name is Jim Healy. I consider him the best agent in the United States. Because you can't get him out of humor. I used to go into his office and pretend to want a railway ticket to get under his delightful influence.

One day a wealthy and rude old lady, as some ladies are most likely to be cranky when they get old and insolent when they are of the first families in town, came into Healy's office. He was busy at his desk. A pile of letters was stacked up at his right hand. He was behind in his correspondence, in which state of things you or I would be irritable.

The old lady drew up a chair, sat down by him, and with one sweep of her hand scattered all his letters over the floor.

"Now," she said, "you attend to me!"
Healy turned around, laid down his pen, shook hands with his visitor, and said, smiling:

"Now, do you know, Mrs. Jones, you've taken a load off my mind. I was just wishing I could get rid somehow of these pesky letters. Please tell me what I can do for you."

He sold that woman over \$700 worth of steamer tickets.

Why snap at people? Why show impatience? Why treat them with indifference? It's all in a lifetime. It's all part of the game.

And nine-tenths of your game, believe me, is making people feel pleasant.

-Frank Crane.

To Every Reader

ERY likely you have already heard of a change in your editorial staff,
—and right here the new Editor has a message to deliver, a message for every last supporter of the paper.

The News has just completed its eighth year. From a modest little sheet of four pages it has maintained the pace set by every force and factor in the telephone universe, and is to-day holding its head very high indeed. Throughout these eight years of great progress the name of Mr. Havens has been preëminently associated with our paper. Through many a trying period he has belabored the lagging forces—always the optimist, always "delivering the goods" in just the sort of packages we have called for. A very lively pace has been set—a pace we've got to maintain.

And this brings us to the message which your new Editor feels compelled to dictate. We have before us, first and foremost, the task of maintaining a present very high standard. It seems probable that Mr. Havens' new duties may carry him far afield from the News—so far that we shall find scant opportunity to shift to his shoulders any portion of the no small responsibility which is ours. And appreciating the job which lies ahead, I am asking for all the help, all the counsel, all the coöperation which is yours to afford.

The Editor's desk is broad and will accommodate every communication, personal or otherwise, you may feel prompted to forward. Your Division and District Correspondents have promised their last pound of steam in the endeavor to set, if possible, a new high-water mark for our publication. And if, then, you the Operator, you the Foreman, you the Supervisor, you the Bookkeeper, you the every man and woman in the ranks will join in the one effort of everlastingly "boosting" your paper, the Editor will best evidence his appreciation by rolling up his editorial shirt-sleeves and try to make the "going" easy.



Managing Editor.



OUR SOCIETIES

Getting Together

Maybe the Spare Pair Society didn't have a good time on Thursday evening, October 16, when the annual banquet was given at Kugler's! One hundred six members and guests were present and there wasn't a dull moment during the entire evening. "Goodthe entire evening. "Good-fellowship" was the slogan, and not until the last speech was made did the crowd realize that the party had lasted until 11 P.M.

President "Joe" Carroll officiated, and during the dinner snappy entertainment provided by professional musicians. A very attractive and unique souvenir was presented to each diner in the form of ten blueprints giving a list of officers, the seating arrangement, menu and songs.

After the coffee, President Carroll introduced (he really needs no introduction) our good friend, Mr. Felton Taggart, as toastmaster. The speakers of the evening were: L. C. Gainor, F. I. Daly, J. H. Hons, J. L. Kilpatrick, N. Hayward and W. T. LaRoche.

The banquet and entertainment committee consisted of W. A. Eipper (Chairman), W. Spofford, W. Roop and W. Hannan.

and Treasurer.



The meeting of the Telephone Society of Pittsburgh, held on Friday evening, October 24, was addressed by Mr. Clarkson, his subject being "Pittsburgh Rates."

The directors, officers and committees of the society for the coming year are as follows: Directors—J. H. Boeggeman, President; L. M. Dunn, Vice-President; J. H. Moore, Secretary

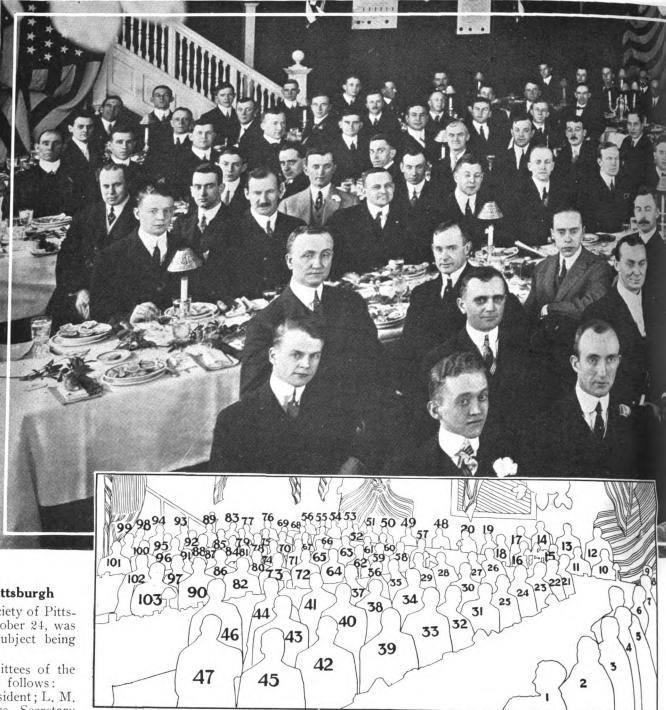
Officers-G. B. Bayly, W. B. Clarkson, G. A. Geddes, L. L. Leith, C. A. Beam, G. A. Dull, W. W. Henderson, E. F. Patterson, J. H. Boeggeman, J. D. Gordon, J. K. Martin, L. M. Dunn, A. Bunton, D. Hester, J. H. Moore, B.

Stryker. House Committee—W. W. Henderson, W. B. Clarkson, G. A. Geddes, J. K. Martin, B. Stryker. Membership Committee—G. B. Bayly, L. L. Leith, G. A. Dull, L. M. Dunn, C. A. Beam.

Northern Pennsylvania Telephone Society

The first meeting of the Northern Pennsylvania Telephone Society, held in the Chamber of Commerce Hall, Wilkes-Barre, on October 17, had a record-breaking attendance.

Mr. J. H. Crosman, Jr., General Commercial Superintendent, spoke interestingly on "Some Timely Topics." Comments were afterward made by R. W. Kintzer, Local Manager of William Barra, payly elected president G. S. Wilkes-Barre, newly elected president, G. S. Reinoehl, Porter, Brisbin, Harkins, Coover, Williams and Simons.



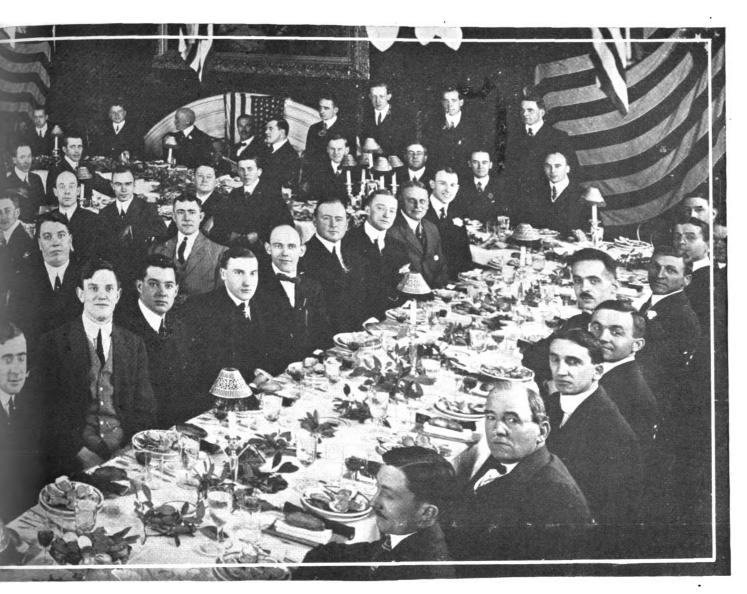
Annual Banquet of the Spare Pair Society of Philadelphia October 16, 1913

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| 2 W. Sherwood | 28 C. H. Guilbert |
| 3 P. A. Brown | |
| | 29 E. B. Tuttle |
| 4 S. L. Young | 30 W. Rahn |
| 5 H. R. Grace | 31 J. H. Butler |
| 6 W. M. Biemesderfer | 32 J. A. McGowan |
| 7 H. W. Wayne | 33 J. H. Baldwin |
| 8 R. H. Irvine | 34 W. W. Hannan |
| 9 W. A. Scheible | 35 H. J. Shaetzle |
| 10 H. R. Clegg | 36 J. W. Van Alst |
| 11 G. R. Scott | 37 T. H. Griest |
| 12 C. H. Swisher | 38 J. Dresher |
| 13 W. L. Roop | 39 J. W. Gormley |
| 14 D. C. Paul | 40 M. Wright |
| 15 J. I. Kinney | 41 F. I. Daly |
| 16 L. C. Gainor | 42 R. C. Smith |
| 17 J. W. Abel | 43 W. R. Cousart |
| 18 J. L. Kilpatrick | 44 W. A. Eipper |
| 19 W. T. LaRoche | 45 J. Bice |
| 20 F. Taggart | 46 J. H. Hons |
| 21 W. J. Stewart | 47 J. Larson |
| 22 A. W. Diller | 48 J. H. Carroll |
| 23 H. Hendricks | 49 R. C. Mason |
| 24 J. D. Dimond | 50 N. Hayward |
| 25 J. W. Cogan | 51 H. Mouradian |
| 26 R. M. Glaspey | 52 H. M. Reeves |
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79 C. H. Briedenfield 80 C. H. Painter 81 I. B. Jones 82 C. L. Meixel 83 F. J. Reutlinger 84 H. Peters 85 H. V. Osterman 86 C. Idell 87 W. Hamilton 88 J. T. Hannahs 89 H. Barber 90 E. C. Wiley 91 H. Wile 92 W. Breese 93 W. McGlinchey 94 C. W. Brooks 95 A. Magnuson 96 C. H. Mott 97 W. Buchanan 98 C. M. Smith 99 T. J. Loudenslager 100 A. Morgan 101 G. Harron 102 L. H. Honneger 103 C. E. Malley





Chester District

Miss Alice F. McHale. Chief Operator of Swarthmore and Morton exchanges. writes that on October 8 the line of a Swarthmore subscriber, whose house was under quarantine for smallpox, was reported O.D., consequently it was prohibitive for the Wire Chief, Frank Hoffman, to gain admittance, in view of which he passed his head set through a window to the subscriber and instructed him how to test for an open in the fuses of the protector. This the subscriber did and found them O.K. Then the Wire Chief realized the trouble was in the bell box which was in the patient's room. Procuring another instrument, together with some inside wiring, the telephone was then connected up outside the building and the instrument passed into the house through a window, at which time the manner of regulating the bells was explained to the subscriber.

Thus one hour after the trouble had been reported the line had been O.K.ed, to the great gratification of the subscriber, who remarked that the telephone was the sole remaining means he possessed of communication with the outside world.

Jeitles.

The Philadelphia Telephone Society

The officers elected for the 1913-14 season are:

President, P. C. Staples.

Vice-President, J. D. Kennedy. Secretary-Treasurer, E. J. Speh.

The President has appointed the following committees:

House—F. B. Evans, Jr. (Chairman), A. H.

Osterman, J. L. Kilpatrick. Finance—A. E. Berry (Chairman), E. C.

Wiley, F. I. Daly,

Membership—J. D. Kennedy (Chairman), W. W. Young, J. G. Emmons.

Next Meeting

BACK AT GRIFFITH HALL Crozer Building, 1420 Chestnut Street. First Monday, November 3.

Speaker: Mr. F. C. Moody, Plant Superintendent, Philadelphia.

Subject: "What We Want."

New date, old hall—8 o'clock sharp.

Trenton Plant Club

The first meeting of this club for the season of 1913-1914 was held in the Company's Storeroom on Thursday evening, October 9.

Officers for the ensuing year were elected as follows: J. Henry Daly, President; John Ferguson, Vice-President; Harry E. Hack, Secretary and Treasurer.

A short paper was read by P. C. Ragotzky on "Receiving and Transmitting."

hiladelphia Division ~

JALAMORELLE, Division Correspondent

In Philadelphia 141 stations were obtained from Plant suggestions and 39 from Traffic during September, netting a total of nearly \$3900. Since November, 1912, over \$33,000 in revenue have resulted from the suggestion slips—surely a plan well worth while.

More than 12,500 line orders were issued during September; 1900 of these were issued in the last three days prior to the time the October Directory went to press.

OWENS.

The Philadelphia County Medical Society, through its Committee of Arrangements, recently notified Contract Manager Tinkler of its pleasure at receiving our invitation to visit the central office.

The Rinkedoodle Club held its first dinner of the season at the Hotel Vendig, Tuesday, October 14, immediately following the meeting of The Telephone Society. Twenty-five members attended. The original committee of eight was reëlected to continue in charge of affairs.

BRADFORD.

September proved a prosperous month in Philadelphia, since during this month there were 95 P.B.X. contracts obtained covering 756 stations and 205 trunks.

CHAMBERS.

Division Manager Berry Speaks to Logan Association

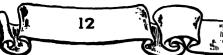
THE LOGAN IMPROVEMENT ASSO-CIATION is an organization composed of residents of that very enterprising section of Philadelphia lying close to the northern end of Broad Street. This district is newly built up and consists of better class residences and high grade two-story homes.

In view of the completion of our new Wyoming central office located at Broad and Rockland Streets, which is within the Logan section, Mr. A. E. Berry, Division Manager Philadelphia, was invited by E. J. Lafferty, the President of the Logan Improvement Association, to deliver a lecture upon the general subject of the telephone.

Mr. Berry's lecture was illustrated with stereopticon slides. He told the association many interesting details of the Bell telephone business, and gave his audience a good idea of the plant as well as the details of the operation of a central office.

During the lecture Mr. Berry gave a personal invitation to all present, together with their families, to visit the Wyoming central office as soon as it is in running order.

The lecture was well received by the audience of more than three thousand members of the association. Among the telephone people present were Messrs. R. S. Henderson, Special Agent; S. E. Tinkler, Contract Manager; W. P. Hull, District Manager; and H. Boulter.



Nov.1

Collapsed Bridge Causes Cable Trouble

By D. S. Hilborn, Cable Engineer

OST of our readers are, no doubt, familiar with the old covered bridges which formerly were commonly used for spanning streams. Many of these picturesque affairs still exist in this part of the country, but their number is gradually decreasing as they succumb to that affliction which attacks most all of man's work—old age. Sometimes, like their creators, they just slowly wear out; again they fail, owing to accidents which in their prime they withstood time and time again.

It was an occurrence of the last-mentioned class which recently caused serious interruption to the service on the Philadelphia-Washington cable and enabled the Cable Division of the Philadelphia Plant again to demonstrate its excellent

organization for rapid repairs.

A short distance above Elkton, Md.—half a mile or thereabouts—the Big Elk Creek crosses the road between that town and Newark, Del. Under this road extends the subway of the A T. & T. Co., connecting Philadelphia with Washington. This conduit was carried across the Big Elk Creek by suspending it beneath the floor of the bridge which spanned the creek. On September 30 a severe wind and rain storm visited the eastern part of the United States. During the height of the storm on that night the bridge, unable to withstand the wind, collapsed.

Trouble did not develop on the cable until the following morning, the weight of the wreckage of the bridge having by that time injured the cable. The first report reached the Cable Division about 12:10 P.M. on Wednesday, October 1. Mr. Strickland, of the A. T. & T. Co., stated when making the report that about 13 trunks were out of service and that the trouble was at some point between Wilmington and Havre-de-Grace, near Perryville. Fifteen minutes later he again called and said that the trouble located approximately at manhole No. 187, between Elkton and Iron Hill, but nearer the former place. This location was verified by Mr. A. J. Egan, of the Cable Division, at 1:20 P.M., who reported that the trouble located between manholes 186 and 187.

In the meantime preparations were being made to repair the trouble. At 1:30 P. M., Foreman Wood left Philadelphia with a splicer and tester in a Ford delivery car supplied with a pump and splicing material. A three-ton truck was withdrawn from its work in the Kensington District

and hastened in town to pick up the emergency cable and other necessary heavy equipment. This outfit left for the scene of the trouble at 2:30 P.M. Besides the material it carried four additional men.

The advance guard in charge of Foreman Wood reached the job about 5 P.M. They were



THE ADVANCE GUARD EATING. (ON THE FENCE)—W. GLADSTONE. (LEFT TO RIGHT, SEATED)—J. SNYDER, G. McCANN, W. WOOD, F. MUNZ, J. FINLIN.

subjected to some delay owing to the poor condition of the roads. In several instances they were compelled to make detours through fields to avoid fallen trees which blocked their passage. Upon their arrival they found that Mr. George, Division Plant Chief, Baltimore, of the A. T. & T. Co., had reached the job before them. The collapsed bridge-which was located between manholes 186 and 187—was resting on and partly supported by the cable across the creek. weight on the cable had drawn the lead sleeve in manhole No. 186 up to the duct entrance towards the creek and had pulled the wire splice into the sheathing in the conduit. The cable sheath, just beyond the bridge abutment towards manhole No. 186, was badly damaged for about three feet. In manhole No. 187 the cable was pulled off the racks and stretched straight across the hole. The strain on the cable also disturbed the splice in manhole No. 185 to some extent.

After the gang had completed what work they were able to do, they started up the road to look for the truck which they knew was following them with the emergency cable. This vehicle had been also delayed by fallen trees. Owing to its weight the truck could not make the detours

possible for its light Ford, and the gang was compelled to clear the road of the obstacles it encountered. The truck, after delays as just described, which amounted to one and on e-half hours, reached the scene of the disaster about 7:30 P.M.

Placing of the emergency cable was started at once and completed about 12:30 P.M. on October 2. The reel was set up close to the fallen bridge, the cable laid back along the road to

manhole No. 186 in one direction, and across the wreckage of the bridge to manhole No. 187 in the other. Transferring the pairs through the emergency cable was started at 1 A.M. and an O.K. on all pairs which were in trouble at this point was received about 8 A.M. This work was more difficult than usual because the strain on the

cable had pulled the wires so tight across the manhole. Extreme care was taken to avoid any reduction in the insulation resistance, the paper insulation in both splices being paraffined thoroughly both before and after the transfer was made. Upon the completion the emergency οf splices, they were well taped up. About eight pairs found to be still in trouble. This was due to the straining of the splice in manhole No. 185, and was cleared by removing the sleeve and cutting back on the

sheathing. An O.K. on these pairs was received at noon, October 2.

On October 2 a relief gang was sent down on the 2 o'clock train, arriving about 3:30 P.M. This gang wiped up the splice in manhole No. 185 and stood guard on the emergency work in manholes No. 186 and No. 187 until the morning of October 3.

Inasmuch as a considerable period of time would elapse before a permanent crossing would be built, it was decided, with the approval of Mr. George, to span the break for the present with an aerial cable. This plan required the setting of three poles, the stringing of strand and cable, etc. Division Plant Chief George made arrangements on October 2 to ship cable by auto trucks from Baltimore, but our troubles were not over. At 8:30 A.M. on October 3, Mr. George called up and informed us that one truck hauling the cable had broken down and that a second one was stuck in the mud. He asked if cable could not be shipped from Philadelphia. We had the cable ready for shipment by 10 A.M., but found that the express company would not be able to handle a reel of this weight on any train before 5 P.M. It was decided then to deliver the cable on the auto truck which had brought the cable from the Western Electric Company. The cable reached its destination about 2:30 P.M.

Early on the morning of this day (October 3) a 1½-ton truck left Philadelphia with the tools and equipment for erecting the poles, strand and cable. The gang of six men left on the 7:20 train. The former reached the iob at 9:30 A.M. The former reached the job at 9:30 A.M., about an hour after the gang. It was necessary to lay about 100 feet of duct from the manholes to the poles opposite the holes, then to guy the end poles and run strand. About 390 feet of 120-pair, 16-gauge cable was required to reach from manhole to manhole. This length covered the underground portion between each manhole and the adjacent pole, the cable on the poles and the aerial part on the strand. Starting of the work was delayed until 9:45 A.M. owing to the non-arrival of the owner of the property on which the poles were to be set. In the meantime the Local Line Foreman hauled the poles to their location.



BIG ELK CREEK BRIDGE THAT COLLAPSED, INJURING CABLE.

THE TELEPHONE NEWS





It was found that the Western Electric Company did not have in stock any conduit rings sufficiently large to take the 120-pair, 16-gauge cable, neither was it possible to obtain any marline clips. The gang took with them sufficient No. 6 galvanized iron wire and marline and made up the necessary clips on the job. Work was continued until darkness stopped operations and begun again at daylight on the following day. The erection work was completed by 9 A.M., Saturday, October 4, when Foreman Wood and his splicers started to transfer the wires from the emergency to the aerial cable. This work was completed by 7:30 P.M. There still remained some scattered pieces of trouble which required investigation in the near-by manholes. The opening of these splices, testing the wires, and the closing in of the cable at all points kept the gang busy until about 4 A.M. on Sunday, October 5. From that time until 6:30 A.M. they nustled to rereel the emergency cable, collect their tools and material, and load all this on the auto truck which left at once for Philadelphia. The men themselves left the scene of their labor for Elkton and

The accompanying photographs, taken on the day after the trouble was reported, give some idea of the conditions existing at the scene of the trouble. It was a most unusual case of trouble for us and involved not only careful planning upon the part of those in authority but also long hours of hard work on the part of the workmen.

caught a train shortly after 8 A.M.

Everyone concerned in this job, whatever the hardships, has the satisfaction of knowing that theirs was a difficult job well done.



Camden District



N Camden a flagpole 102 feet tall and 24 inches in diameter at the base has for twenty-five years stood in front of the G. A. R. Hall at Fifth and Taylor's Avenue. The "stick" grew in Clearfield County, Pa., was rafted down the Susquehanna River to Chesapeake Bay, up the Elk River, through the Chesapeake and Dela-ware Canal to the peake Delaware River and towed to Camden. Within a year a crack developed in the pole and, as it became noticeably

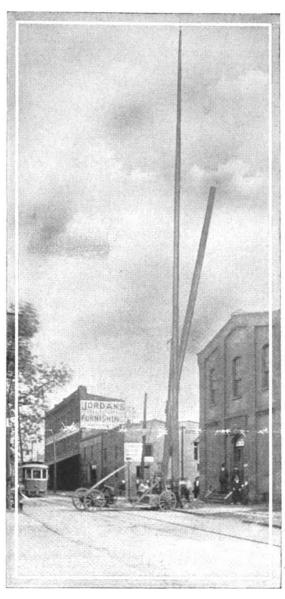
unsafe its removal was determined upon. Here's where the Telephone Company became interested. Our experienced men were requested to take charge of the pole-lowering. Fred Owens, Gang Foreman, and his men, auto truck, pole-raising wagon and "gin pole" were soon on the job. A 55-foot pole was placed in position by the pole to be removed and rigging was arranged. The historic flagpole was then chopped off at the ground line and lowered successfully.

WRIGGINS.

Dover District

Sunday evening, October 12, was the first time for sixteen years that the central office at Dover was not in operation.

On account of a local physician diagnosing an



FRED OWENS AND GANG REMOVING ONE OF THE TALLEST POLES IN EXISTENCE.

operator's illness as diphtheria the office was closed from 9:30 P.M. until 6 A.M. the following morning in order to comply with the rules of the Board of Health, during which time the Traffic quarters were thoroughly fumigated.

It was necessary for the Traffic Department to notify the eight hundred subscribers that the office would be closed for the above-named period, and this work was well done by Miss Bishop, the Chief Operator, assisted by two

On account of Dover being a switching point for all toll lines running north and south, it was necessary to cut these lines through in order not to tie up all business going north or south on the peninsula.

There was not a single complaint received due to the suspension of telephone service.

PRINCE.

Norristown District

A gratifying communication from a subscriber who has had time to be a fair judge of our service is here reproduced:

Norristown, Pa., October 9, 1913. The Bell Tel. Co. of Pa.,

Norristown, Penna.

Dear Sirs:—Just two years ago I started in business and for the first time began using the telephone at the office and at my home.

Being a young man, I am very much interested in results, and in going over my business the other evening was very much pleased to note that

progress had been made.

There are several reasons for this progress in my business, one of them being the telephone service. To my mind this service would not amount to anything at all if those in charge did not try and help out the subscribers. In my case your operators have been exceedingly kind and courteous to me and more than once went out of their way to help me, and as a matter of fact your entire office force have been so kind and considerate with me in my dealings with your office that I could not help but write this letter to you and to say that this treatment is appreciated and to congratulate you on having such an able and courteous office force.

Wishing you the success that you deserve in

your business, I remain.

Yours very truly James J. Carr. BEERER.

Trenton District

At the Inter-State Fair, held at Trenton, N. J., during the latter part of September of each year. the usual vaudeville show this year was conducted on three stages, placed in front of a grandstand seating about 20,000 people.

This year on the center stage was placed a table with a portable desk set on it. Attached to the leg of the table was a standard "A" sign. The telephone was used by a clown in his act. The sign was so placed that the sun made it stand out more prominently than anything else on the stage and it was the only reading matter or advertisement to be seen, except the bulletin board used for the horse races.

Organization Changes

The Bell Telephone Company of Pennsylvania

T. L. Harris has been advanced from Assistant Foreman to Foreman at Philadelphia.

J. E. Meader, formerly Inspector at Philadelphia, has been made District Engineer at Wilmington.

H. S. Putnam, who was Special Agent in the Erie District, is now Rights-of-Way Assistant there.

O. H. Stimmel, a Loop Foreman, has been appointed Gang Foreman at Reading.

W. Benerman has been transferred from the Publicity Department to the Traffic Superintendent's Office, Philadelphia Division.

E. H. Havens, formerly Managing Editor of THE TELEPHONE NEWS, has been made Special Agent, Publicity Department.

R. C. Mason, formerly Special Agent, Publicity Department, has been appointed Managing Editor, THE TELEPHONE NEWS.

The Central District Telephone Company

W. H. Morrow has been promoted from Line

Order Foreman to Foreman, Wheeling District. S. P. Vonderau, as Plant Wire Chief, has been transferred from Salem to East Liverpool, Ohio.

Alfreda Patrick has been advanced from Messenger to Morse Operator and Cashier at Mones-

J. Sinz, Helper, is now Storekeeper in the Pittsburgh District.



Nov. 1



How the Story was Told to the Country

AY, remember how on October 7 Hamilton came into the office and slapped you on the back as he sang out, "Morning, old top"? Recall how you couldn't get your mind settled on business for fifteen minutes as you wondered what had happened to pale, monosyllabic Hamilton that he should be beaming over with good-fellowship? Then it all dawned on you and you instinctively reached for your desk set to inquire—well, you didn't know what to inquire; so you asked if it were raining in New York or what the batteries were likely to be. Wouldn't Tuesday morning have dragged like a flat tire if everybody starting with the boss and the office boy—and working from both ends, as it were—had not been so chuck-full of "pep"? You knew deep down in your heart that Hamilton couldn't tell why a batter shouldn't take his base on a balk; but there was no mistaking the fact that he had been caught in the irresistible wave of enthusiasm upon which everybody was due to bob for the rest of the week.

For what causes more interest than a World's Series struggle? Of the ninety-two million people in the United States, it is safe to say that at least fifty million got with keen interest all the latest news of the gigantic struggle as it was flashed over the wires to the newspapers, electric scoreboards, telephone exchanges, et cetera. Only 151,192 fans were fortunate enough to see these games as they were played. How the news was supplied to the other 49,848,808 forms a very interesting exhibit.

During the great battle the demand for news was so great that the Western Union and our Companies carried bulletins of the progress of the games into every hamlet of the United States, Canada and Cuba. Every daily paper in the country wanted the score by innings, and in every city of three thousand population or over the press received a running story of the games as

they proceeded. The game was reported by more than two hundred special writers in addition to the regular baseball reporters. The morning newspaper men, who did not use the wires during the game, kept the wires hot at night; therefore it required a full corps of operators to handle their "stuff." It has been estimated that each ball-park wire carried not less than 400,000 words of copy. Special wires ran direct to Boston, Cincinnati, Cleveland, Chicago, Pittsburgh, Detroit, Washington, Louisville, and other cities East and

Some ten thousand telegraph operators were required to send, receive and relay reports of the games. At least one hundred wires were strung into each of the ball parks, and these reached out into relay wires that covered the entire country and a good part of Canada. The glad tidings were even cabled to Europe, Cuba and every other place where some form of the game is played.

When one of Mack's trump cards—the king of clubs-cleared the boundaries in the first game the operator at Trappe became disconnected, and, judging from the hoarseness of the voice which responded later in the afternoon, it is surmised that there even must be some folks down in Maryland interested in this national game.

In some of these smaller towns and villages the fans had to be satisfied with a Western Union "billet-doux" after the game from the nearest telegraph office, telling which team won and who pitched. But this condition existed only in the smaller towns. In towns spelled with a capital T a temporary stand was erected in front of the newspaper offices. Instruments were placed on this platform and each play—every strike, ball and hit—was announced in a deep bass through a gigantic megaphone to a throng equal in size in almost every case to the Government census figures for that locality. The younger generation wondered how people ever got along in the days when there wasn't Universal Service.

The Saturday gathering before the Gettysburg. Pa., scoreboard was far larger than any politician has ever been able to bring out. Talk about noise! Every time "their Plank" struck a Giant out a deafening racket arose such as hasn't been heard around the old battlefield since '63.

Nearly every theater and moving-picture show in the East flashed the results by innings to their matinée patrons. In the vaudeville houses none of the stars received a fraction of the applause accorded to Collins and his team-mates. Even the women cheered and the men appeared to be sitting in electric chairs. While these audiences had to be content to get the score by innings off a plain scoreboard and then wait till the next morning to read the detail in the papers, in most of the larger cities the fans got a very good idea of the game from the electric scoreboards as it was being played.

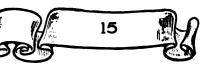
As the wire for the Atlantic City electric scoreboard passed through the joint telephone-telegraph office in Camden a score-sheet was placed in the window and posters were stuck up giving the plays as fast as they were received. Thus the Camden office force were able to post information an inning or so ahead of the ticker service, and this "scoop" was much appreciated by the specta-

The electric scoreboards, consequently, gave service in more ways than one. But great metrop. olises didn't have a monopoly on these modern improvements. What was claimed to be the largest scoreboard in the country faced-not Herald Square, New York, but-Herald Square, Uniontown.

With such preparations scattered over the country it is easy to understand how it was that when Murphy smashed the first ball pitched in the series it had the effect of sending an electric shock through the sensitized systems of the great army of fans. "Ada boy" rolled right across the continent, past newspaper bulletin boards and ticker tapes, north, east, south and west, and never stopped until it landed into forenoon and the Pacific Ocean.

Empires might have fallen, the central office might have blown up, the State Commission might have announced their rate decision. These





things, while important, were not to be considered from this time on with the importance of the score.

"What's th' Score?"

Nothing else was permissible. Many serious and sensible telephone men might have been guilty of mild lunacy about 3:15 P.M. if they

had been brought before a grand jury. But it is doubtful if grand juries would work at a the when time House of Representatives couldn't get down to business.

Thousands, who spasmodicallv shouted or groaned, were packed before scoreboards. the Tens of thousands tried to monopolize the nearest telephone and consequently the signals on the switchboard twinkled like a swarm of fireflies.

Out in Morgantown, W. Va., Local Manager Fred Dunning took advantage of the interest in the big series score to demonstrate to one of the leading newspapers that their office needed two Bell telephones in order to retain the goodwill of their subscribers; and on the day after the "demonstration" the two were installed and they are still in use.

The universal, all-engrossing and all-sufficing question of the week was, "What's th' score?

"Walnut 750"

Perhaps the greatest responder to this query was the North American Information Bureau in Philadelphia, with its famous call number "Walnut 750." This number was merely called 133,-452 times during the series, which means that a good many thousand fans had their curiosity satisfied, since everybody who wanted news of the game received it, and received it satisfactorily and quickly. Thanks to Connie Mack, this year's service was even a little better than ever before, for with an accurate record of two World's



CROWD ABSORBING WORLD'S SERIES BASEBALL IN FRONT OF OUR CAMDEN OFFICE.

Series to guide them it was possible to make definite preparations in advance. In fact, the men who had this matter in charge, by basing their plans on these past figures, were able to estimate in advance within a few hundred of the total number of calls that were made. However, several details refused to be foretold. For instance, judging by the results of previous years it was assumed that more calls would occur when the Athletics played away from home; while, as a matter of fact, this did not hold true this series. But the reasons that regulate the total number of calls are curious and sometimes hard to discover. For example, when a team is in second

place the amount of calls is far greater than when the same team is leading the league; nevertheless it is easy to understand why Wednesday's close game should bring forth the record-breaking number of calls, it being estimated that 40,000 calls were made within two hours.

How would you like to hear "Hello, Walnut 750! What's th' score? Wow! Thanks!" repeated excitedly, in a different tone, almost every fifteen seconds from 2 to 5 o'clock? However, not all of the fans were content with just the score but wanted detailed information as to just how certain things occurred, and they got it. On Friday afternoon during the busiest peak, when the little lights were flashing in bunches, a soft soprano asked how many times Eddie Collins had reached first in each game. In fact, every conceivable question relating to the why and wherefore of the big games was asked. One young lady even wanted to know if Mr. Baker had light hair. And rest assured that Mr. Doyle and Mr. Potts saw to it that everybody received the correct answer to their question, no matter what it might be.

Imagine what a catastrophe it would have been if during the World's Series week there had been a single hitch in this "Walnut 750" service. The resulting profanity alone would have disturbed the calm in several thousand offices. The cheerful stay-at-homes from Bustleton to Darby would have been almost instantly transformed into undesirable citizens. However, this danger had been eliminated by Mr. Young, who not only supervised the advance arrangements but also kept the table, with its 40 trunks, under his surveillance during the entire week. In this work, it might be added, he was ably assisted by Mr. Kirkland.

Probably the one person who appreciated telephone service at this time more than anybody else in the country was the man who in 1910 won three out of the four necessary championship games for Philadelphia. Before the present series President Shibe of the Athletics made a suggestion which Supervisor Robins and his men carried out in most admirable form. The







Nov. 1

pay station in Mr. Shibe's office at the ball park was connected directly with the University Hospital switchboard, and from this a substation was placed at the bedside of Jack Coombs. Thus the big twirler, with an instrument on his chest and a receiver to his ear, smiled every afternoon (except Wednesday) and was the happiest patient the hospital authorities have ever seen. And when the last Giant pop fly had been caught on Saturday, the former Man" reluctantly handed his instrument to the doctor with this comment, "Say, Doc, do you

know if it hadn't been for that little tin boy, nothing on this green earth could have kept me away from the do-Moreover, ings. it is safe to wager that his neighboring patients also appreciated this direct wire.

Even the stone walls of the East-Penitentiary ern were not thick enough to shut out news of the world's championship. The warden reported that every man in the institution knew the results of the games before the crowds had fin-

ished swarming out of the ball grounds. Who is there that is foolish enough to state the limits of telephone service when the big series is being played?

"It's the seventh inning. Score—Athletics, 5; New York, 1. Oldring is on first and Eddie Collins is at bat," announced Rev. Augustus E. Barnett as he walked from the telephone to begin his address before the Epworth League in Frankford. You can bet the congregation welcomed this announcement.

But the World's Series is now ancient history, having been finished a long time ago—twenty days, to be exact. Eddie Collins is now returning to answer "Lansdowne 141" calls after a hunting trip in Forest County, while Bender. Strunk and Wyckoff are still hunting together in District Manager Paus's territory. Eddie Manager Paus's territory. District Manager Raup's territory. Eddie Murphy has already settled at his home at White Mills, Pa., and Rube Oldring is establishing a farm at Shiloh, N. J., that he hopes will some day rival Plank's Gettysburg "ranch." The spirit of calm indifference to all matters foreign to business has quickly regained its place in the offices throughout the Company and country. But underneath it all everybody still cherishes memories of the week that put the spark back into their systems.

Story of a Real Workshop

(Continued from Page 3)

truck, the car was towed into the garage by 5:45 P.M."

"How long is the garage open?" I inquired.

"To handle properly emergency work the ga-

rage is kept open twenty-four hours of the day, Sundays and holidays included.

"Some idea of the work that is being handled may be obtained from the fact that 475 repair jobs were completed during the month of August and September. This includes the complete overhauling of 11 automobiles. 2 Mack trucks and 25 motorcycles, but does not include numerous small jobs that come under the heading of garage ser-

Just then the photographer interrupted by reporting that he had finished his task, that it was after six o'clock, and that he was hungry. "Mr. Williams has given me my fill of interesting facts," I replied, "so let's go," and thanking the Supervisor for his kindness, we left.

On the way back to the office I couldn't help thinking that here was interesting and eloquent testimony of improvement and progress toward giving the public improved service.



Courtesy of The North American.

JACK COOMBS, THE FAMOUS INVALID PITCHER, HEARING THE NEWS.

An Appreciation

Of all our faithful public servants, none deserve more courtesy and more consideration than our indispensable "hello girls." We can hardly blame the operators in the central exchange of a West Virginia city for refusing to take insults from a society patron. Some of these think that the payment of a small monthly telephone bill gives them a right to treat rudely the skilled em-

ployees of the Company. The better bred or more refined a man or woman is, the more careful he or she will be to show a courteous regard for the feelings of those with whom they are brought in contact, whether these hold a high or a humble position in the community.

The majority perform their duties with remarkable skill and precision. Once in a while mistakes will occur, and sometimes these mistakes are provoking to the patience of the customer. But to give way to irritability never pays in the long run. For-

bearance and good humor on the part of both the patrons and employees of a telephone company are the best insurance for good service. As a kind answer turneth away wrath, so does a courteous protest prevent the repetition of a mistake, whereas grievous words are bad for both the transmitter and receiver.—Lebanon Daily News.

"Atlantic" takes Care of the Big Convention

OW would you like to be a Plant man and have a convention of some fifty-five hundred delegates "strike town"—delegates trained to expect excellent telephone service on land and water—and be given, say, three days to provide over two hundred exhibitors with stations? You would like to see the men who can do this? All right, then, the next time you are in Atlantic City stop around at 14 S. New York Avenue.

Atlantic Plant Supervisor W. Zerman and his men have been taking care of just such problems as this twice a year for eight years. What is more, they handle the matter smoothly at the time of their busiest peak. And it is easy to understand that the June peak in this popular summer resort bears a striking resemblance to the Matterhorn-or was it Mt. Everest that we were taught to associate with 29,002 feet? X₀ matter, what concerns us is that we have an Atlantic Plant Department that refuses to be "thrown for a loss."

The two conventions referred to are those of the Master Mechanics and Carbuilders and the American Electrical Railway Association, Since the latter with their numerous allied and affiliated bodies have just finished their convention, it will serve as an up-to-date "sample." Although the main object of this convention is to promote good-fellowship and closer relationship among the trade, it has an important business aspect among the electrical railway chiefs. For here are represented over four hundred electrical railway companies, these companies having about 85 per cent. of the mileage of the United States and Canada. An idea of the general nature of this convention may be gained from the fact that claim agents, accountants and men of all departments come here and hold their special meetings at this time.

Of perhaps the greatest educational value are the exhibits, of which there are two hundred and thirty, occupying seventy thousand feet of floor



PART OF THE WESTERN ELECTRIC COMPANY'S EXHIBIT AT AMERICAN ELECTRICAL RAILWAY ASSOCIATION CONVENTION. METHOD OF REINFORCING A POLE WITH CONCRETE SHOWN ON THE RIGHT.

space. For there are men here representing four hundred manufacturing plants—companies large and small that have something to sell to electric railways. These exhibitors come from all over the country and show such a tremendous assortment of paraphernalia that the display bewilders the uninitiated and they continually back into

Digitized by

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"Danger, Hands Off!" signs—thus adding to their confusion.

That you may understand that the extent and variety of the articles exhibited is not being exaggerated, it might be well to take the booth of the Western Electric Company for an example. Here were shown switchboards, train-dispatching equipment, vacuum cleaners, insulators, fire-extinguishers, sleet-cutters, insulating compounds, trolley poles, car-heaters, headlights, trolley wheels and harps, and a lot of other equipment that will, for time-saving reasons, simply be mentioned as miscellaneous.

Thus with its wide field it is not remarkable that this should be one of the two largest conventions that have come to Atlantic City—a haven for conventions. These larger conventions have been coming to this seashore resort for eight years, and were held on the Steel Pier before the Million Dollar Pier was completed. This change of location meant that most of the telephone equipment that had been placed on the Steel Pier had to be disposed of. This was mainly a matter of losing the cable. Therefore the new piers are being equipped with conduits, and the threeinch pipes put in these will take care of convention traffic in the future. On account of the uncertainty that conventions will always select the same place, and the undesirable weather conditions, the cable is the only equipment permanently installed on this Million Dollar Pier. Consequently it means a large amount of rapid work must be done to provide for the telephone needs of the convention.

After Mr. McConnaughy, the secretary and treasurer of the A. E. R. Association, leased the pier for a specified time, an application was signed for telephone service. This took place about three weeks in advance of the opening, and the principal specification was that the service should be so arranged that there would be a telephone available to every exhibitor's booth. While careful plans were drawn up that the assigning might be done in the most practical way, the constant rearranging of the exhibitors' spaces made it necessary to change these plans frequently.

To take care of this convention a 150-line common battery switchboard, one 600-pair junction box and eleven cells of 5D storage batteries had been placed on the pier in advance. The actual installation of these 116 telephone stations, however, was accomplished in a little less than three days' time. Besides the 900 feet of 200-pair cable, 1200 feet of 60-pair cable and 600 feet of 26-pair cable that was used, it was necessary to install over 16,000 feet of 18-gauge bridle wire. To be brief, three efficient men, completing twelve or thirteen installations apiece each day, "did the trick."

All of the sets were equipped with 3-conductor wire instead of the usual cord, since the dampness would put the cord out of working order in the five days the instruments are in use. The giving of good service, as a matter of fact, in a location where the ocean rolls underneath is not an easy matter; and P.B.X. Inspector H. Austin was on hand every morning during the convention to counteract any trouble the dampness might cause. However, with every precaution, a storm will sometimes put as many as fifty stations temporarily out of service, for the rain that beats in and the heavy fogs that accompany these storms even causes water to run out of the bellboxes. Up in the cupola where the switchboard of ten trunks is situated it was necessary to maintain a storage battery due to the ever present dampness, and three electric heaters were kept going night and day throughout the week.

Notwithstanding the fact that this long ocean

pier is a trying place from a Plant man's point of view, an A1 service was maintained. Moreover, there has never been a single serious complaint from the convention authorities. This fact is probably the greatest reason why there was nothing but Bell service to be found on the pier. Of course, the fact that most all beach-front hotels have a Bell instrument in every room, thus enabling their guests to keep in touch with any or all parts of the convention pier, is another strong inducement. Although there was a tremendous amount of convention business trans-



CONVENTION EQUIPMENT REMOVED BY ATLANTIC PLANT IN 120 MINUTES.

acted via the unlimited local service during the week, it is doubtful if this was as important as the long-distance communications. Midvale, Pittsburgn, Boston, and many other points in this country and Canada were called regularly every morning from the convention pier.

During the convention week the Electric Railway Journal published a daily edition of from sixty-two to seventy-four pages. The fact that this edition of 9000 copies was printed in Philadelphia made it necessary to send in much of the news by telephone. This was done every evening up until 11 o'clock, at which time the last copy went to the printer. At 4 A.M. the magazine was ready for the wagon and arrived by train in Atlantic City and was delivered at every hotel in time for breakfast reading. Thus a staff of ten editors in Atlantic City and three in Philadelphia connected by long-distance service were able to accomplish a remarkable magazine feat. Besides this, all delegates who registered up until 5 o'clock had their names appear in a classified alphabetical list the next morning.

While discussing this matter of rapid work it might be well to mention that Foreman G. F. McBride and his men violated all speed laws when the time came to remove the equipment they had installed on the pier. As the Million Dollar Pier is used for other purposes, the day following the convention it was necessary to have all equipment removed on the closing date. Thus on October 17, when the largest convention in the history of the association closed at 4 o'clock, the Plant men drove up in a big truck loaded with large boxes. Six men disconnected instruments and placed them carefully in the packing cases. These cases were later taken to the storeroom, where the money was removed from the coinboxes; afterwards the equipment was overhauled and put back in stock.

All wiring was taken down with care and placed in coils and the measurement written on attached tags; consequently the waste of wiring

amounted to practically nothing. So well was each man's work systematized that the men departed with the entire equipment neatly packed at 6 P.M. Surely Atlantic City can well be proud of this novel installation; and as to this two-hour removal, remarkable hardly seems to express it.

Unique Construction School

At Corsicana, Texas, the Contract Agent main-

tains a telephone construction demonstration school for the assistance of the farmers who build lines to connect with that exchange to The Southwestern (Bell) Company. A miniature telephone line has been erected in the back yard of Contract Agent Sizemore's home to show methods of placing cross-arms, guying poles and insulating the wires.

The demonstration afforded is said to have been of exceptional advantage to prospective telephone line builders, and the initiative of this Con-

tract Agent is reflected in the condition of the service lines radiating from Corsicana. As the lines are properly constructed, the saving in maintenance and the continuity of service has resulted in the development of a country system of unusually high character.



Patrick Fitzhenry, one of our Scranton linemen, while at work in Priceburg on October 15 was startled to see a little girl rushing from a house with her clothing a mass of flames. Dropping his tools, Fitzhenry rushed to the child's assistance and tore away part of the burning garments and extinguished the rest

with his bare hands. The child escaped with a few slight burns, but had it not been for the prompt work of this Plant man she would likely have been burned to death.



Vibrations

Service is the biggest word in the English language.

Theodore N. Vail has tendered his resignation as director of the New York, New Haven & Hartford Railroad.

"According to the proverb, the best things are the most difficult."

The Mexican Telegraph Company has been operating its lines in Mexico for three years, but has always used American employees. Two years of this time the country has been disturbed, however, strange as it may seem, the lines and service of the Mexican company have not been interrupted for two consecutive hours during the entire period.

"When in doubt ask questions, but be careful how you ask them."

The first telephone line in New York City was the one from the A. D. T. office at 704 Broadway to Hilborne L. Roosevelt's organ factory on West Eighteenth Street. It was completed in 1877.

Mr. Roosevelt together with Charles A. Cheever organized the Telephone Company of New York with capital \$20,000, on August 31, 1877. Although the company lasted but ten months, it was the first venture of time and money in the telephone business in New York.

He that cannot smile ought not to keep a shop.—Chinese Proverb.

Brief mention is made in another column of Mr. Richard O'Brien's retirement from active Western Union service. If you want to know more about his remarkable career in the telegraph service read his interesting book, "Telegraphing in Battle."



A SAVAGE ZULU CHIEFTAIN, IN GALA ATTIRE. HEARING OF THE CAPTURE OF A FAT MISSIONARY.

Arnold Bennett, in his book, "Your United States," says: "What strikes and frightens the backward European almost as much as anything in the United States is the efficiency and fearful universality of the telephone. * * * It is the efficiency of the telephone that makes it irresistible to the great people whose passion is to 'get results.'"

"Criticism is one of the most wholesome and necessary things in our commercial life."

Fifteen of the twenty shots fired from one of the San Francisco mortar batteries struck a target 5½ miles out at sea. For night practice this is regarded as an unusual score. The target, which was picked up by five powerful searchlights from the shore, was not visible to the gunners who fired from a pit behind a hill. The range was telephoned to them from the stations overlooking the entrance of the harbor.

"The wonderfully gifted man is he who sticks like a leech to a single purpose."

The Right Honorable Herbert Samuel, M.P., Postmaster-General of Great Britain, who is the active head of the government-owned telephone and telegraph system in England, is at present visiting this country. Accompanied by Mr. T. N. Vail and Mr. U. N. Bethell, he inspected and tested the wire service within and out of New York, making calls to Philadelphia, Boston, Chicago and other cities.

The way to get your share of this world's joy is to do your share of this world's work.—Glen Buck.

Kathleen V. Lyons, who will be remembered as the operator heroine of the Austin, Pa., flood, was married in Howell, N. Y., on October 21. Miss Lyons, at the time of the disaster a Bell telephone operator, received word that the dam had given way about fifteen minutes before the water struck the village. Instead of first seeking a place of safety for herself she stuck to her board, called up all she could possibly reach and saved many lives by warning them of the impending disaster. Immediately after leaving the telephone building it was wrecked by the flood.

"It is only the boy amateur who flies into a rage at resistance and pounds up that which he is attempting."

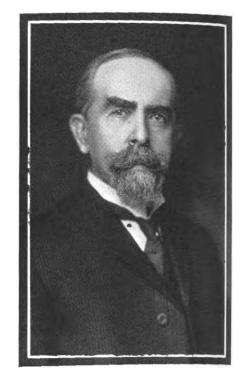
The London Academy recently declared that the English are losing their manners and that the telephone is to blame; an excuse which seems to have been quite overlooked by the Giants in explaining the loss of a trifle more than manners in the vicinity of Connie Mack's ball park a couple of weeks back.

Die when I may, I want it said of me by those who knew me best that I always plucked a thistle and planted a flower when I thought a flower would grow.

—Abraham Lincoln.

Prince Charles of Wrede was fined \$7 by courtmartial at Wurzburg, Germany, for insulting a
telephone girl over the wire. As the girl is a
government employee, the charge came under the
head known as Beamtenbeleidigung, or insulting
an official. The Prince tried to excuse himself by
saying that he was exasperated at the bad service.
It was admitted that the service was so bad that
anything he might say about it would not have
been an exaggeration; but even that did not give
the Prince the right to be insulting in his re-

Mr. Richard O'Brien Assumes New Duties



Mr. Richard O'Brien, Traffic Supervisor of the Western Union Telegraph Company in Pennsylvania and New Jersey, has decided to cease his present strenuous work, but he will remain subject to the call of the Company in an advisory capacity.

He has had many years of important duties with the Western Union Company, and has had charge of its lines and offices along the Delaware and Lackawanna, the Central Railroad of New Jersey, the Lehigh Valley and other roads in Pennsylvania and New Jersey since 1867.

Mr. O'Brien has been prominent also in telephone work and progress. He constructed the first telephone lines at Scranton in 1877, only one year after that wonderful invention was shown him at the Centennial Exhibition in Philadelphia; he established the first telephone exchange in Scranton and was a pioneer in extending the service throughout northeastern Pennsylvania. He proved his faith in the great possibilities of the telephone when most people considered it only a toy, and he still retains his interest and faith in its progress. Mr. O'Brien is a Director of The Bell Telephone Company of Pennsylvania.

In retiring from work in the telegraph field Mr. O'Brien expects to devote a portion of his energies to the building up of his interests in Scranton, which he considers the healthiest city in the country as well as one of the most promising for future prosperity.

Mr. O'Brien is also a Director of the People's National Bank and the First Vice-President of the Scranton Real Estate Company.

Emile Berliner, inventor of the Victor talking machine, recently delivered an address before the Franklin Institute of Philadelphia. Mr. Berliner is well known to the scientific world because of many wonderful achievements, chief among which is the Berliner loose-contact telephone transmitter, which brought the telephone into the range of commercial use. In 1878 he was chief inspector of instruments for The Bell Telephone Company, and the first 20,000 transmitters that were placed in service passed through his hands.

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ittsburgh Division ~ zz.HUGUS, Division Correspondent

Johnstown District

The Johnstown Business Office recently received several letters of appreciation, one subscriber commenting upon the fact that the service

had not only been good, but was consistently good.

The Ebensburg Manager received another letter in praise of "the model courtesy of the Central District Telephone employees."

SMITII.

Wheeling District

A Traffic agreement entered into with the the Eastern Ohio Telephone Company opens up a territory formerly without Bell service. This connection establishes service with approximately one thousand subscribers on the East Rochester, Homeworth, Hanoverton and Minerva exchanges.

Local Manager Bills and his wife spent two weeks hunting and fishing between the Negro and Meadow Mountains in Maryland. The Castleman, a small but picturesque river, abound-

ing in trout and bass, furnished many pleasant hours; while in the woods squirrel, pheasant, quail and possum furnished Manager Bills and Old Scout with lots of sport.



LOCAL MANAGER H. G. BILLS, OF WHEELING, W. VA., AND OLD SCOUT,

In commenting upon the election returns the Wheeling Register "takes occasion to acquaint its readers with the fact that this is the first time that any newspaper in West Virginia has attempted the plan of printing the returns by precincts from an entire Congressional district. A corps of correspondents in each county, together with right-up-to-the-minute service by Bell Long Distance telephone folks, made this notable newspaper achievement possible."



Wheeling Operators Enjoying Halloween Party

Fifty Wheeling operators held a "get-together dinner" on October 16 in the front room of the office, this being the first of a series of meetings to be held during the winter for the benefit of the girls. One purpose of the gatherings was to thrash out the many little problems that sometimes trouble the operator during her day's work. Talks were given by two prominent telephone operators of Pittsburgh, Miss Mayme Jackson of the Grant Exchange and Miss Lucile Grant of the A. T. & T. office, who told of the best methods applied at their home offices.

Miss Mattie L. Miner, district Chief Operator, was in charge of the dinner. The room was gayly decorated in keeping with Halloween, grinning pumpkin heads, autumn leaves and corn shocks adding to the rustic effect. The girls all delighted in preparations for the "spread" and were rewarded by having a jolly good time and learning much of value.

MISS DIEHL.

A Uniontown man, who evidently needed instruction as to how to give a telephone number to the operator, said, "Give me one and another one and a nothing and a nine—R."

A woman who was as unfamiliar with operating methods must have thought the operators could see down a whole street, for, as many have done, she gave her number geographically. She wanted the green store opposite the drug store, between the feed store and the meat market!

MISS HEPPLEWHITE.



Fire at Mahanoy City, Pa.

On October 15, about 7 A.M., fire broke out in the Kaier Opera House at Mahanoy City, Pa., caused by an explosion on the stage. The fire

gained such headway that for a time it was thought the entire business section of the town would be destroyed. Our Local Manager Sheldon and Plant Chief Hasskarl of Pottsville were promptly notified by Miss Mayme Brady, our Operator-in-Charge at Mahanoy City, and they proceeded to the scene in Company automobiles.

Our central office, a short block away from the scene of the fire, was not damaged. A wall of one of the burning buildings fell over a 50-pair aerial cable, but the service was not interrupted, Later a mass of burning embers lay directly across the cable, but through the efforts of combination men Dence and Irvin this danger was removed and the cable was not injured.

The traffic load was

The traffic load was enormous during the time of the fire and great credit is due to the operating force, composed of Misses Mayme Brady,

Catharine Mulvey and Katie Conrey, who were on duty at that time. Their prompt and courteous service was favorably commented upon by the newspapers and the public.

HYKES.



CABLE STANDS FIRE TEST AT MAHANOY CITY.





Western Union Helps Open Panama Canal

By H. F. Taff, Manager Western Union Telegraph Co. Washington, D. C.

RESIDENT WILSON, by closing a telegraph key in the White House at Washington at 2 P.M., Friday, October 10, flashed a signal over a continuous telegraph and cable circuit to the Isthmus of Panama, setting

off a gigantic blast of dynamite which demolished the Gamboa Dike on the Panama Canal, the last barrier separating the waters of the Atlantic and Pacific Oceans, and marking the last stage in the completion of the great waterway.

The President's signal passed simultaneously over another circuit between Washington and San Francisco, terminating at a special stand at the base of the Dewey Monument in Union Square, where the raising of the Stars and Stripes signaled the consummation of the event to a great and enthusiastic assemblage.

Of the several cable routes to Panama, the "Galveston route" was found to be best adapted to the special service required, involving the linking of the land and cable systems. Consequently a Western Union circuit was made up di-

rect from the White House, Washington, to Galveston, where connection was made with the cable of the Mexican Telegraph Company crossing the Gulf of Mexico to Coatzacoalcos, Mexico, thence overland to Salina Cruz, on the Pacific Ocean, thence by the cable of the Central and South American Telegraph Company along the Pacific Coast to San Juan del Sur, Nicaragua, and to Panama, where connection was made with the land line of the Panama Railroad to Gamboa Dike, representing 5172 miles of telegraph and cable lines. The second circuit, to San Francisco, consisted of a Western Union wire connected at Washington to the Panama circuit through a repeating instrument in such manner as to guard against the possibility of any interruption to the latter circuit, adding another three thousand miles, and making a continuous circuit of 8172 miles.

The ceremony at the White House was entirely informal. The wire tests made by Mr. E. W. Smithers, Chief Telegrapher of the White House,

PRESIDENT WILSON'S SIGNAL WAS RECEIVED BY C. E. THATCHER (SEATED), MANAGER OF THE WESTERN UNION AT SAN FRANCISCO. BEHIND HIM IS II. F. DODGE, ASST. GEN. MGR., PACIFIC DIVISION, WESTERN UNION. THE GIRL IS MAYOR ROLPH'S DAUGHTER, WHO RAISED THE FLAG.

and Mr. J. W. Collins, of the Western Union Plant Department, showing everything to be in readiness at the appointed time, the President was informed and entered the room accompanied by his aide, Dr. Carey Grayson, U. S. N., and several representatives of the press. Chief Telegrapher Smithers transmitted over the combined circuits the preliminary signal of four dots, previously agreed upon, giving way to the President, who after a lapse of thirty seconds closed the telegraph key which flashed the final signal.

After a few moments, Galveston relieved the ten sion by reporting, "Signal passed successfully to the cables," followed by San Francisco's report "Signal a pronounced success"; a confirmation also coming from the Isthmus that the service was successful in every detail, the explosion of the blast having been accomplished. Thus a remarkable feat of telegraphy made possible this epoch-making event.

A Western Union standard combination set of instruments, taken from stock, was used by the

President in transmit. ting the signal, as well as standard equipment for the telegraph and cable service through. out. When it was learned that the President had signified his willingness to participate, less than forty. eight hours remained in which to complete all the detail arrange. ments with the widely separated land and cable points involved. and the smoothness and precision with which the plans were executed reflects the high standard of efficiency maintained by the Western Union and its cable connections.

Overheard

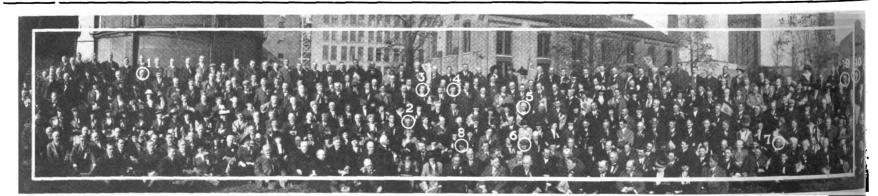
"Hurry up, Harry, let's go home now, it's after six o'clock." The supervisor of salesmen is talking to one of his salesmen.

"Just a minute, and I'll be with you," Harry answers, "but before I swers, "but Deroic leave I want to glance THE TELEPHONE has just over THE TFLEPHONE NEWS which has just arrived."

"Take it along with you, Harry, as I am doing," the supervisor replies, "and read it after supper when you'll have more time."

"You see," the supervisor continues as they walk homeward, "I always read the News at home now, because formerly reading it at the office I was apt to be in the words reading it at the office I was apt to be in the wrong mental atmosphere for enjoying general telephone news. So one day, Harry, I carried the paper home and read it in the evening when my mind was more at rest, and I can tell you that I found myself then more eager to enjoy the topics."
"Good-night," the supervisor says as they part; "let

me know in the morning if you agree with me. "All right," replies Harry. "So long."



A GLIMPSE OF THE TELEPHONE PIONEERS OF AMERICA AT THE HAWTHORNE PLANT OF THE WESTERN ELECTRIC CO. DURING THEIR THIRD ANNUX. CONVENTION HELD IN CHICAGO, OCTOBER 17 AND 18. OUR REPRESENTATIVES IN THIS PICTURE ARE (1) MR. II. F. THURBER, (2) MR. J. H. MEHAFFEY, (3) MR. W. T. WESTBROOK, JR., (4) MR. H. B. HOOPES, (5) MR. C. A. IANKE. (6) MR. C. B. SMITH, (7) MR. S. H. MYFRS, (8) MR. U. N. BETHELL, (9) MR. L. WINTERMUTE, (10) MR. I. M. WOOMER, OTHER COMPANY REPRESENTATIVES AT THE CONVENTION BUT NOT APPEARING ABOVE WERE MR. F. H. BETHELL AND MR. W. T. WESTBROOK. WE WANTED TO PUBLISH AN ACCOUNT OF THIS CONVENTION IN FULL, BUT WE HESITATE ABOUT PRINTING 186 TYPEWRITEN PAGES, AND WE DON'T SEE HOW WE COULD PRINT SOME AND NOT ALL OF THE INTERESTING PROCEEDINGS.

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VOLLIX, NO.22

JUST BEFORE THANKSGIVING

NOV. 15, 1913

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What We Want

By F. C. Moody, Plant Superintendent, Philadelphia

A paper read November 3 before The Philadelphia Telephone

HEN the House Committee requested me to deliver a paper for this evening, they, very considerately, left the choice of subject to me. "What We Want" finally suggested itself, and although it is not expected that the evening will permit our touching on more than a few of that numerous progeny, it is hoped that our most urgent needed improvements may be touched upon, and it would appear that the subject should give full scope to our officials, if any are here this evening, to point us in the way we should go.

Naturally my inclinations will be to notice some of our Plant

"wants" as I see them. These, I feel, are but collateral, and many of them tributary to the greater wants of the other divisions of the

Company. Ralph Waldo Emerson, in his essay on "History" (the record of accomplished facts), states, "Always the thought is prior to the fact." The thing to be accomplished must first be thought That is the first over. step; a realization that while what we may be doing is in a way satisfactory, yet it is far from the real answer. Now, did we ever stop to think that "wants" are the basis of all business? Without "wants" would have no business. Now "wants" may originate with individuals, or they may be suggested, or, as it were, cultivated. It will occur to you all that our jobs relate to both classes of "wants."

Now, just as the successful merchant must intimately know the "wants" of his customers and must promptly and graciously fill those wants-i.e., his thought of them must be prior

to the fact of filling them—so, too, with this telephone business which means so much to each and every one of us.

Now, just as the athlete keeps Why We in condition by regular exercise, Are Here careful diet, bodily care, so, too, in our business it is not a waste of time for us to keep refreshing ourselves as to why we are

1. It takes money to run this business, and that means that capital must be had. To get that the public (the investing public) must have confidence in us. We all know that, so far, this 'want" has been admirably handled.

2. It is incumbent on each of us, vital as a matter of personal interest to each of us, to do our part to protect that investment so that it shall be safe, and that as demands for wider and wider

areas of service arise our officials can with confidence go into the financial market and readily obtain the money for capital still further to extend this greatest of modern utilities.

Now, so far as the Plant man is concerned, it is not apparent that this imposes any additional demands, because the policy has always been, "Adopt the new and better; discard the old and obsolete." The Plant Department is charged with certain duties as its part of the work, and its function is to furnish the clear track, so to speak. This, as we all know, involves construction and maintenance. As a business proposition, we want net earnings. It has been brought out that net earnings depend mainly on two things—viz., gross earnings and expenditures. We have been told that it is easier to cut expenditures than it is to increase the gross earnings. I will state that this proposition comes from the gross revethan abstract things, so let us look at Philadel phia conditions for a few minutes.

According to our plant inventory of January 1, 1913, the total plant investment in Philadelphia was some \$19,200,000. We then had 135,221 stations, so that our plant investment per station in Philadelphia was somewhere around \$142.

This inventory indicates the distribution of the bulk of this total investment to be about as follows, in round numbers:

1. Land and buildings.... \$2,300,000 2. Equipment (C. O. School, subscribers' apparatus, etc.).. 6,000,000 3. Outside exchange plant..... 10,655,000 4. Outside toll plant..... 314,000

\$19,269,000

This accounts for the bulk of the total investment in plant.

Now, just as the merchant or manufacturer must determine the economical ratio of stock to sales, so, too, we must try to keep the same economical plant balance. I am not able to state what proportion of this total plant is idle waiting for business and for other reasons, but we can look at, say, the exchange cable plant alone

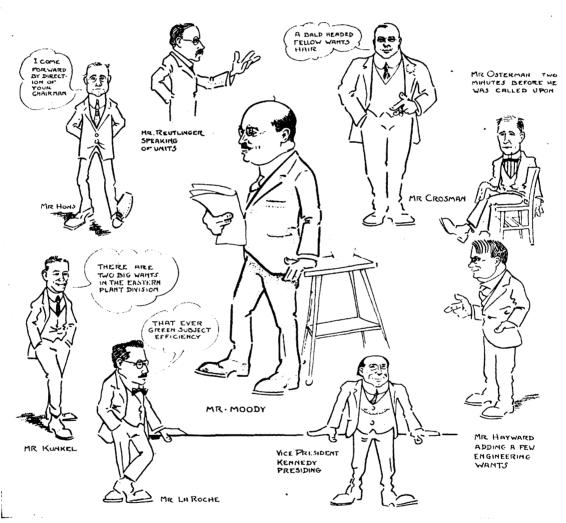
This same inventory shows the exchange cable plant to stand us about \$4,240,000. This plant is approximately on a 65 per cent, efficiency basis. Our experience is that, if we reach 75 per cent., we are tied up, and new business is delayed in establishing service. Now, of course. none of us are satisfied with this. Here, then. is one of our "wants."

The portion of this exchange cable plant that is idle may not be, and. I think, is not, above the average per cent, to be found in other territories where growth and moves and changes are occurring, but the 35 per cent. of exchange cable plant that is idle in Phil-

adelphia stands our Company about \$1,500,000. Six per cent. interest alone on it amounts to \$90,000 per year, to say nothing of maintenance. depreciation, taxes, etc., that go to make up the

total annual charges on this class of plant. Now, all will agree that we cannot expect to work this class of plant on 100 per cent. efficiency. If we had no growth at all, "moves" would require sufficient slack to take care of that item. Then further, the Wire Chief needs slack so that when a cable pair fails, and the cable has not totally failed, he can change pairs promptly and thus maintain the service.

None of us will admit that 60 per cent. is a very satisfactory figure. However, with present methods, depending on growth, moves, maintenance, time it takes to get new plant, etc. it appears that our answer lies between 60 and 75



A FEW POSES CAUGHT BY THE STAFF ARTIST AT THE TELEPHONE SOCIETY

nue producing side of our family, the Commercial Department, and while Plant, the spender, will not and never has denied that cuts can be made, we are constantly studying to reduce the unit cost of the plant.

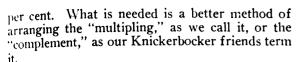
Now then, there are, from a Plant Wants Plant standpoint, certain requisites or "wants"

- 1. Reasonable construction costs.
- 2. Maintenance that will keep this plant in a highly operative condition.
- 3. All of these costs properly subordinated to our earnings.

Our management wants all of these things so regulated that the public will receive adequate service and the Company can afford reasonable rates for the service.

Concrete examples are more readily considered

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Some years ago an eminent engineer investigated methods abroad for our telephone system, and the report showed that this need had been recognized in Russia. There they established distributing frames at certain street intersections on main feeder runs. Local service wires were tied together at this point, so far as possible, and fed back to the central office by the minimum

number of cable pairs.

It is very questionable, however, whether in our large American cities this would be applicable. Our maintenance men will tell us that such an arrangement is apt to get very messy and be a source of trouble, as well as a source of delay in establishing new service. The thought, however, suggests itself that, for the reason that improvement has been worked out in methods of multipling house cables, we ought to look for some corresponding improvement in the outside plant. One of the things to be discounted is how far the Commissions may go in swinging from direct-This has a line service to party-line service. direct bearing on how cables should be multipled; in other words, the proportion of direct- and party-line service is a principal determining factor.

Reducing Idle Investment

ent incompatibles that we must attempt to reconcile:

Now, in considering the proposition of reducing this idle investment, here are some of the apparament, and the proposition of reducing this idle investment, here are some of the apparament, and the proposition of reducing this idle investment, here are some of the apparament, and the proposition of reducing this idle investment are some of the apparament.

1. I get the impression that the Commercial Department would welcome a lower in-

vestment per station.

2. From the same source I gather that, instead of our present speed of cutting in contract orders, which for September was between 6 and 7 days, average time, they would like a much shorter time.

Here are two incompatibles to be discussed; here are two "wants" that, so far as investment goes, tend in diametrically opposite directions! If we cut down the present plant investment, with growth and moves and changes, we are going to run up the per cent. of this cable plant in use. When we do that, then rearrangements of this plant have to be made before orders can be cut in.

In other words, delays occur, and, furthermore, we are tearing apart the plant to make it fit. We must do a certain amount of this under any conditions, but what the Plant Department wants is a more efficient method of getting the needed flexibility out of this exchange cable plant.

In his paper Mr. Crosman gave credit for a reduction in the average time of establishing service, from about 10 days in 1912 to between 7 and 8 days in 1913. This was a move in the right direction, but some more "moving" is wanted. Again, with all its variables, we have not yet evolved a system of reports by which construction efficiency can be accurately measured. There are many variables, tending, for the same class of work, to make one job cost more than the other. Have we yet gone as far as the railroads in this matter?

Last winter, while in the Harrisburg Division, my attention was, curiously enough, called to a magazine article on railroad practice by one of our Traffic Engineers, who is a "crank" on any treatise on efficiency. Probably all of you are familiar with the way this certain magazine article described railroad practice in determining how many men were required to maintain a section of roadway.

Their unit is miles of single track. They have

determined how many men are required to maintain a single-track mile. Now, a mile of double track does not require, obviously, twice as many men as does a single track. The side embankments are common. The roadbed has been widened. They have arrived at some ratio like, This means that, say, if 10 men will maintain a unit of single track, that 16 men will be required for the same mileage of double track. Now, switches, frogs and accessories have all been reduced to fractions of the labor required for a single mile track so that they have a regular system for very closely approximating what is required for a given case. Of course, changes in the art would change the ratios. Now, can we apply any such method to our construction work?

Our Traffic Department has for Equalize years equated different classes the Load of calls so that they have a measure of the amount of work thrown on each operator, and they can take immediate steps, by varying their forces, to meet the peak demands, or, by "answering jack changes," can equalize the load among the operators. It therefore appears that we have a Plant "want" right here. I mention it, not that I have the answer, or any immediate prospect of it, but we ought to be working along some such lines. The setting of a number of hours in which a job should be completed is a step in the right direction and will assist in gradually accumulating the data. This has been worked out for our equipment installation work, and also for the maintenance work. It does not mean that we drive men to harder work, but that we intelligently analyze methods and designs of plant equipment so that the minimum of effort will produce the maximum of results.

Mr. Crosman, in his paper, cited certain embarrassing delays,—one that of a mechanic, the other, that of a doctor, where the telephone was to be moved. One of these instances was due to neglect to open the subscriber's letter until six days had elapsed; but I cannot help thinking that a similar delay, under our present conditions, could just as readily have been wholly chargeable to "Plant." Now "Plant" in that classification stands for a multitude of sins. First, if we did work to provide an equal number of spare facilities at all cable terminals in the city, they would remain equal about as long as an even distribution of the wealth of the world would hold. We would still, after a few moves and changes, a few new subscribers added, have our "old man of the sea" again on our backs.

If a new direct connection from a conduit system is involved, then city approval is needed before the work can be done. In that case the subscriber's wishes must be subordinated to certain public regulations,-regulations made, not by the Telephone Company, but by our legislative bodies who represent the people themselves. Another serious restriction has just been ruled by our Philadelphia public authorities, and that is that no guaranteed pavement can be opened for a period of five years after it is laid. We would not be warranted in laying a direct connection to every small building, yet who can foresee the date, within five years, when a large office building or apartment house or hotel may be erected, warranting, in fact demanding, for public convenience that the Telephone Company reach it by direct underground connection?

Public
Coöperation
Then there is another phase of coöperating with the public that, I venture, often occurs to those
Plant men intimately associated with providing adequate facilities for plant. This is our so-called "right-of-way" difficulties. This same

public that demands instant service, this same public that keeps our troublemen under call seven days a week, does not realize yet that it contributes to its own convenience by granting privileges for wire runs or cable runs to serve their neighbors.

A personal animosity between "Mrs. Smith" and "Mrs. Jones" too frequently ties up a block of houses, until our strenuous Rights-of-Way Division gets some less economical and roundabout route by which telephone service may be established. Here, then, is a "want" the solution to which will bring sunshine into the Right-of-Way man's life and will contribute to alleviate promptly a public want.

Still a further "want" relates to our outside open-wire plant. We want better coöperation on the part of the electric companies furnishing electric light and power, more especially the former. At present we are paying fifty cents per pair per pole per annum for open-wire attachments on poles of the Electric Light Company. This retards development in the sparsely settled districts where the telephone revenue would be inadequate to pay even the carrying charges on pole lines to reach them. In some such sections both companies have built pioneer lines. Why shouldn't they combine, using one set of poles? Another "want" relates to the time it requires to get additional plant in service. Where plant is required on a wholesale scale it is justified in the estimate by predictions as to the amount of business to be obtained. Then the estimate goes up for approval, and after its approval, material is ordered. Now, what strikes one is the importance of having all this work scheduled so that the completed plant will be ready for service exactly when wanted. We all know that the best schedule cannot, due to emergencies that arise, be lived up to in every detail, but it will put us a long way towards filling this need to look ahead, schedule the studies, the approvals, the ordering of the material, and the actual execution of the work. More particularly I think it means keeping record of the number of days' work involved in approved jobs, as well as those to come, then having the number of employees ready to deliver the goods. This chain of events involves not only the Telephone Company but also the supplier of our materials.

About
Test O.K.s

Now, I hesitate even to attempt to enumerate more "wants," for they are so many; our opportunities are so great that, do my best, all will agree that I have but scratched the surface. I can imagine a Wire Chief saying "Why doesn't he mention test O.K.s?" The Wire Chief has to, as it were, pinch the subscriber, wake him up and tell him to hang up his receiver. That costs us money. We want something better.

I want, before our President opens up the "wants" of you gentlemen, however, to reiterate those words, for they indicate how the solution is to come,—"Always the thought is prior to the fact." Remember it was Professor Bell's thought prior to his invention that has given us this great business of to-day. The public demands better service along some lines than we are at present able to deliver.

Elbert Hubbard, in one of his recent *Philistines*, printed this: "If the wolf comes howling and sniffing at your door, get busy and secure your wife a new set of furs" (in other words, surmount the difficulties). Further, in that same issue he says: "The first step in getting your own is to know what you want." Now, gentlemen, I am sure you came with a pocket full of "wants," and we need to know them in order to secure that set of "furs."

Joint Telephone and Telegraph Offices

By J. M. Repplier, Atlantic Coast Division Manager

Excerpts from a paper read before the Telephone Society of Harrisburg

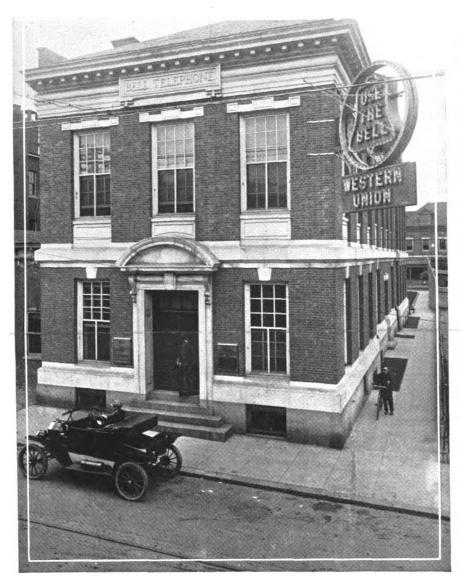
AM happy indeed to have the privilege of addressing you at what I understand is the second meeting of your society for the season 1913-14, and I have selected as a subject for our little talk one that is so new to most of us that I at first hesitated in choosing it, fearing it would not bring out the proper amount of discussion. It often happens that greater benefits to us as members of Telephone Societies are derived from the discussions following the reading of a paper than from the paper itself.

Perhaps it may seem to you after I have had my little say that a paper on a solely commercial subject was read, but in this I wish to assure everyone that they would be mistaken. The Telephone Company as a whole is concerned. In its preparation all phases of the Company's work were considered; the fact that the accountant is now billing an ever increasing number of telegrams to the telephone subscribers and that the Traffic employees are answering vast volumes of calls for Postal or Western Union with the same speed and accuracy that the call for the familiar number brought forth was quite a factor; but the main factor that all Bell Telephone employees, without exception, are boosting the slogan, "Telephone your telegrams," guided me in selecting the subject of Joint Business Office which must and should appeal to all of you here, as this is what, with your permission, we shall talk about to-night.

The surface of the vast possibilities that lie in this new branch of the telephone work has only been scratched and I wish every one of you to feel free to comment upon the subject from all angles as various points present themselves to you.

Now, just what is a joint busi-Joint Office ness office? Do we all under-Defined stand what is meant by the term? If not, we must go back to its inception and trace some of the various underlying thoughts that were back of it. We have all read and heard much of the complementary nature of the two businesses, telephone and telegraph; how one is an aid and assistance to the other; their very nature makes them such, both transmit the thoughts of one individual to another at some distant pointthe telephone by placing at his command or service a pair of conductors and telephone instruments over which the patron sends his own message, while in the latter, the telegraph, the physical operation of sending the message is done by an employee of the company familiar with the Morse telegraph code. They in no way compete, but the usefulness of both is enhanced when they are combined and each is operated as an auxiliary to the other.

This being an established fact, it is not hard for anyone to imagine an executive of either one of the companies gifted with the aptitude of successful business management visiting a town or city in which both companies maintained business offices. Perhaps they were side by side, across the street, or just around the corner, or somewhere else in the town. In any one of these



THE JOINT TELEPHONE-TELEGRAPH OFFICE AT CHESTER, PA.

cases the economic waste of such an arrangement must have at once appealed to his mind, trained as it was to grasp just such situations and opportunities for economy, and I know now it appeals to you here.

Why should there be two rent bills, two janitor services, two light bills, duplications of furniture and fixtures, etc., when they could so readily be combined, generally at the fixed charges of one and in some few cases by a slight increase of fixed charges in either of them that would provide accommodations for the other?

When we consider the thousands of neighboring telephone **Improved** Service and telegraph business offices, many of them duplications of each other, we can see the plan of combining both outfits under the same roof, being studied and weighed pro and con in all its theoretical and actual conditions until the management was convinced of its ultimate success, wisdom and economy. Not the least of

these advantages, and one not to be passed over lightly, is the added convenience and improved service to the public both companies were organized to serve.

Then the number of joint offices that had been established impressed us greatly. In this state of ours, including also the Diamond State of

Delaware, about half the area of New Jersey and a portion of West Virginia and Ohio, we were able to find only forty-four joint offices. This is a poor showing compared with the other Bell Telephone Company units, and does not reflect any great credit upon ourselves (that is, the field men), when we should be able to establish joint offices and effect economy to both Companies almost anywhere where a telephone commercial office and a telegraph office exist.

Now let us con-

Correct Point of View

sider what we have done from the point of view of the telegraph company', officials with the joint offices we are operating. As they look over our stewardship of their business offices, are they pleased with it? It is best that we consider the subject from their point of view. The telephone business is not an old one; many of us were born before the invention of Alexander Graham Bell was given to the world, while the telegraph business is an ancestor of the telephone. You know the original conception of the telephone was a harmonic telegraph. The electrical transmission of speech was evolved while working for a musical telegraph. We know men in the telegraph field who were there for years before the telephone business was thought of. Therefore, in the handling of these joint offices, we must liken ourselves to young and inexperienced recruits working with old and seasoned veterans. In the work of electrical transmission of intelligence we must consider that these men who have made the telegraph business

what it is, who have made possible

communication not only between

towns and cities in the same state. but between distant continents-whose wires. in fact, encircle the globe-must know the business in which they are engaged. We must, therefore, give them full credit for this knowledge and we must consider the manner in which they look at our management of joint offices. Have we from their point of view done a satisfactory job by the combination? Have we done a more economical job than they were able to effect? If we have not, then they have a perfect right to feel aggrieved at our management. and it is our duty at once to correct those practices which are wrong and to reorganize each joint office in a manner that will be economical, that will give increased efficiency to both companies. better service to the public, and that will effect the result desired to be brought about in the beginning.

If we weigh carefully the telegraph man's point of view, that the "Paid Here" receipts and the



percentage the operating cost bears to them are clearly indicative of the proper or improper management of the business, and, further, that this has proved to be a satisfactory basis of judgment for him since about 1841, we do not wonder that he continues to judge effectiveness of operation from the same standpoint. In addition to that, he is now coming to think of a telegraph office on the capacity basis—that is, how many messages are going through that office either received or sent.

You men in Harrisburg have Messageonly touched lightly on the mes-Rate Plan sage-rate telephone plan, but the men in Pittsburgh and Philadelphia are thoroughly familiar with it, and the arguments as

to its fairness are too numerous for me to mention. Therefore, as telephone men conducting telegraph business, we are more at home when they are discussed on message-rate basis, and we welcome the change in the viewpoint of the telegraph officials.

The message rate (that is, the number of telegrams handled), therefore, was adopted as the method this Telephone Company would from now on use in arriving at the volume of work performed for which the telegraph company would compensate the telephone company. One of the present reports clearly shows these figures making no additional work necessary in the compiling of statistics.

It of course was imperative that the price per message to be paid be such that it was fair to both companies. As the per cent. of expense to "Paid Here" receipts varied at every office, it was obvious that the price or cost of handling

a message would also vary, and the task of arriving at a proper figure for each joint office was no small one, I can assure you; I know, for I have been having some experience in that line lately. The effort was to arrive at the exact cost, one that made for greater efficiency and assured a return to the telephone company of all the moneys it had or should properly expend in the conducting of this new end of its business, plus a small reasonable charge for the supervision of the work.

A committee was formed to Handling arrive at this proper rate of com-Messages pensation per telegraph message to be paid by the telegraph company to the telephone company for the services rendered, and during the meeting of this committee the number of telegraph messages that a Morse employee could handle was discussed; this load factor, as it might be called, being considered as of prime importance as to the number of Morse employees necessary properly to man the joint office after it had been established. From talks with the various Morse employees, many of them claimed that two hundred messages a day was a light load

and could easily be handled by a fairly competent operator. Of course, in a large Morse center, where the employee's attention was not diverted by outside work, a much heavier load than this was readily taken care of. From conversations with various heads of the telegraph company it was learned that a single Morse employee could readily handle one hundred and fifty messages a day, as well as the other work incident to their receiving and sending. In fact, one of these telegraph men made a statement that he, while on his way up the ladder, handled two hundred and fifty messages in addition to his other work, and that he still had time to devote to something else. In our study, however, we purposely estimated low when considering the

was made and it was proved conclusively that the per cent. arrived at as a basis of compensation was not sufficient to reimburse the telephone company for labor and expenses, etc., at all joint offices, especially the smaller ones. It has therefore been determined, as stated before, to change the method of compensation for the handling of telegrams to a message-rate basis, which means of necessity a radical change and greater care in departmental accounting methods for joint offices.

The joining of a telephone and telegraph office means more than the moving of Morse employees into the same room with employees of a telephone busines office, it means the assimilation of that business and expense incidental to

them in dividing the expense charges of the combined offices; it should be divided into three units for accountting, canvassing, collecting, and Morse operation, of course, with the use of the proper accounting numbers, etc.

If this be done with accuracy it will be possible to know at the end of any given month if the rate of compensation arrived at by the committee is sufficient to cover the cost to the telephone company of handling telegraph messages; and if this is not the case, enable the Company to come to another understanding with the telegraph company. The method previously de-The scribed in lieu of another and better one, I feel, can be adopted with perfectly clear conscience and knowledge that fairness to all will result.

. In tak-Bell Telegraph ing over Employees the employees of the telegraph company previously employed in an inde-pendent telegraph office

and making them a part of this great fraternity of telephone men and women, they are expected to become a part of the Bell organization. They are expected to be familiar with that good old business of advancing the Bell and in every way a part of our organization, and the Telephone Company in its commercial department assumes another function, that of Morse operaation, for which it receives so much for each message it handles. It is the rubbing together of what was before two separate businesses into one, in a joint office that spells success; and it is what others have done, what we have done in part, and what we shall do at every one of our joint offices at present and in those yet to be established.

I know we have pride, pride and faith in our ability to accomplish what we set out to do. If other companies are combining and operating joint offices successfully, so will we. make our forty-four joint offices, as well as all of our potential offices, models to which the executives of both the telephone and telegraph companies will point with pride.



THE BIG ELECTRIC SIGN AT 5160 LANCASTER AVE., PHILA., PA., AS IT LOOKS AT NIGHT. IN THIS SIGN THERE ARE 480 FOUR-CANDLE-POWER, 5-WATT, 13-VOLT LAMPS. THIS SIGN IS IN FULL SIGHT OF ALL PENNSYLVANIA RAILROAD MAIN LINE TRAINS, INCLUDING WESTERN AND SCHUYLKILL DIVISIONS, CARRYING MANY THOUSANDS OF PASSENGERS DAILY.

number of messages a Morse employee should handle; not that we would not expect employees to do more, not that we did not find employees handling more, but to be sure that we were well within a conservative limit.

Correlated to this limit of Morse employee capacity in a joint office, and one that is of equal importance in the proper and economical management of such an office, is the load factor or capacity of an inside employee of a telephone commercial business office. This factor is not at all difficult for a telephone man to secure, as the experiences of the past years of which we have complete records are obtainable.

In the beginning it was thought that a fair compensation for the telephone company would be a certain per cent, of the "Paid Here" receipts for telegrams. It was therefore decided to try out this method for a given length of time, at the end of which period a study was to be made to determine whether this amount was sufficient to cover all the operating features involved. Upon the results shown by this study a fair adjustment was to be made with both companies. This study

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\$16,000.



Harrisburg Division B. S. DUNCAN, Division Corresponden

Altoona District Within a few months the installation of new sections to the switchboard will be begun. The

work is scheduled to be completed before next

September. The subscribers' switchboard will

be increased with one new section having room for three more operators and allowing for an increase of about 800 lines, sufficient to serve about 2000 subscribers. The other part of the new work will consist of a complete rewiring of

the toll switchboard, thus making it a switchboard of the latest type. This work will cost about

Good Work at Towanda



George T. Smeaton

George T. Smeaton, Local Manager at Towanda, Pa., is being congratulated on his very successful supersedure work during October.

Following the transfer of the northern tier of counties in Pennsylvania from the New York Telephone Company to The Bell Telephone Company of Pennsylvania in July of 1910, the majority of the service contracts and rates at Towanda became obsolete. The supersedure work was done gradually until October 1 of this year, when the remaining number of obsolete contracts

How to dispose of these remaining 84, and do a "real job," was the problem Mr. Smeaton undertook to solve during the early days of October; and here is what he accomplished:

In exactly 65 working hours 83 of these obsoletes were superseded at standard rates, and but one cancellation notice—the bugbear of every Commercial man—was required to clean the slate. Maybe, in some other corner of the territory, this effort has been equaled,—but the thoroughness of the job and the time it took to do it are records which will "take a lot of breaking.

Should you go to Towanda or any point in Bradford County with Mr. Smeaton, you are impressed by the facts that he knows his territory and the public we serve and that he is so well and favorably received by the business people and residents throughout the entire county.

Mr. Smeaton was born in Waverly, N. Y., in 1872. At an early age he started to work for the Lehigh Valley Railroad Company and for nine years worked as a trainman for that company. During October, 1898, Mr. Smeaton came to Towarda as a Special Inspector for the New York and Pennsylvania Telephone Company, and three years later had charge of all the work in Bradford County. In 1909 the New York Telephone Company appointed him Local Manager, which position he retained when the territory was taken over by The Bell Telephone Company of ''ennsylvania in 1910.

Legal Department Represented at Buffalo Convention

Messrs. R. S. Henderson, C. L. Ritchie and C C. Lawson of our Legal Department attended the seventh national conference on State and Local Taxation held October 23-25 in the Iroquois Hotel, Buffalo, N. Y. Sessions were held and papers read in the morning, afternoon and evening of Thursday and Friday and on Saturday morning. There were 245 delegates present, representing thirty-three states. The subjects covered by papers were: "The Equalization of Taxation," "Equality and Efficiency in Methods of Assessment," "Centralization of Authority in Matters of Taxation," "Uniformity of Taxation." Systems, so far as possible, among all States.'

Organization Changes

The Bell Telephone Company of Pennsylvania

Lee McK. Bryan has been advanced from Traffic Inspector to Assistant Traffic Supervisor,

Henry J. Becker, formerly a clerk, is now a Traffic Inspector at Philadelphia.

M. J. Kimball, formerly Assistant at Philadelphia, has been made Traffic Engineer at Pittsburgh.

The Central District Telephone Company

F. N. Sharpnack has been appointed Local Manager of the Sistersville Sub-District, Wheel-

ing District.
Miss Ada Kaufle has been appointed Morse Operator and Assistant Cashier at Charleroi, Pa. Frank Crossland has been advanced from

Climber to Foreman, Pittsburgh District. John Olson, who was C. O. man in Oil City, is now Plant Wire Chief there.

American Telephone & Telegraph Company

Percy S. Farrar, Assistant Traffic Chief, transferred to New York.

Ralph W. Cathell transferred from New York to position of Assistant Traffic Chief, Philadelphia, vice Percy S. Farrar.

Philadelphia.

Scranton District

Work will be started shortly to relieve those cables which the rapid development is beginning to overload, especially in the vicinity of Hvde Park. Extensions and additional cables will also be run in the vicinity of Green Ridge and Providence sections. This will include the construction of 35,500 feet of aerial cable and 13,200 feet of underground cable. It will also necessitate the construction of 3400 trench feet of main underground conduit and 1400 feet of underground conduit to supply the various neighborhoods. Ten manholes will be built. The total cost of these extensions to the service will be approximately \$40,000.

Wilkes-Barre District

The night watchman at the First National Bank at Pittston was recently stricken with a serious illness. About 3 A.M. our operator, Miss Kathrine Cosgrove, received a call from the bank. The signal light remained on the switchboard, but she could secure no response. Communicating with the night clerk at the City Hall, Miss Cosgrove

Disastrous Fire at Knoxville

The night of October 29 a fire started in one of the business blocks of Knoxville, Pa., and before it could be checked thirty business places and residences were destroyed. All buildings on both sides of the street for a block were burned to the ground, not even a wall standing.

The Bell Telephone exchange, which had recently been equipped with a new switchboard, was burned, also a public pay station, and all that remained was the office pole, as shown in the illustration. At nine o'clock the

morning of the 30th the Bell trunk lines with seven subscribers' stations were working, and within thirty hours a new switchboard was installed and service restored on all lines.

The total loss is estimated at \$100,000, and coming at this time of year is a severe blow to the town. Some places will be rebuilt at once. Digitizeman's life was saved.



"ALL THAT REMAINED WAS THE OFFICE POLE."

informed him of the circumstances. When the City Hall clerk arrived at the bank he saw. through the window, a form lying on the floor near the telephone. He hurriedly summoned an application of the summoned and the summon employee of the bank and a physician; due to this and Miss Cosgrove's quick action the watch-

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FROM a town across the river—it isn't necessary to say which river—comes a confession.

It seems that only a week or so ago the tip had gone out from headquarters that the "big boss" was swinging around the circuit and was scheduled to step off at this particular town for just a look around at our local offices.

Of course—for part of the confession is that such is the usual practice—everybody "got busy." The floors were washed and the brass was polished; everything looked spick and span in no time. If even a finger-print was overlooked, 'twas no fault of the janitor and the office boy.

And by merest chance, in the early morning of the same day on which the "big boss" was to arrive, the Division head dropped into town. After a scrub and cup of coffee at the railroad station, he made his way to the local office, and, lo and behold, what a sight met his eyes! "Like a battleship" doesn't half describe the appearance of that office. 'Twas a joy to behold,—a fact that was not lost on the Division head. But he kept his observations to himself, and, with a mental note, went into conference with the local representative.

In the midst of their talk, a subscriber was ushered in. The man was from the country and, sad to relate, his boots were muddy. Along the shiny floor huge footprints appeared, and beneath his chair a little mound of dirt soon accumulated. Our local representative assumed a troubled expression; so, too, did the eagle-eved janitor who just then peeked in through the door.

And right here the cat jumped out of the bag. For in walked Mr. Janitor with dust-pan and brush and, the moment the subscriber's head was turned, started at work repairing the damaging indignity done to his floor.

This was too much for the Division head, and, when the subscriber had left, a perfectly natural question was fired at the local man:

"What in the deuce does all this foolishness mean? I'm strong for clean floors and your janitor is evidencing commendable zeal,—but wouldn't it have been a bit more discreet to wait until our subscriber had left the room?"

"Well, I'll tell you," came the reply, "the big boss is due to arrive here 'most any minute, and I know you are just as anxious as I am that we shall look our best when he gets here."

Now this isn't told just because it makes a good story, for there's more to it than that. What the "big boss" thinks is just about the most important consideration, to be sure. But who is the "big boss"? Does he have his office in Philadelphia or Harrisburg or Pittsburgh? Not a bit of it! He is in our office, yours and mine, 'most every minute in the day; for the "big boss" is—but, of course, we all know who he is.

So it is for the public, then, that we scrub the floors and polish brass. And don't for one moment lose sight of the fact that he, the public, is the fellow who ought to see us at our best—your best and my best—every minute in the day.

The visitor from headquarters appreciates clean floors and shiny brasswork, appreciates them very much; but "the house in order" was designed to please the public who appreciate these things even more.

Efficiency

By Miss Mary C. Murphy, Tioga Line Order Clerk, Philadelphia, Pa.

O do or not to do. This is certainly among the first questions that arise in connection with our initiation into work; hence why not be efficient? Corporations, like society in general, cannot stand still, they must and do advance. The sins of ignorance in one generation find absolution in the more enlightened practices of the next, so get in line and advance with the generations; "wise up" on the ways and means by experience, because experience up to the point of obsolescence ripens the human being and increases his or her efficiency. Do not work along in comparison with the yardstick, which, like most inanimate things, after being once properly tested is none the better for having made ten thousand measurements.

Experience creates efficiency, efficiency makes "live ones," and corporations want the "live ones."

November 9th, 1913

YOU of Pittsburgh Plant will long remember that date. A wet, sticky snow, freezing to the wires; a heavy wind; and by midnight Pittsburgh was practically cut off from telephone and telegraph communication with the world, while New Castle, Wheeling and Greensburg Districts also suffered severely. Wires broken, poles down, the damage caused by this early blizzard is reported to be enormous.

Such is the situation as reported just as The Telephone News goes to press; and in our next issue the story will be told in detail. But we may rest assured of this: the "always faithful" were on the job, new plant speedily replaced the useless, and the crippled telephone service is being promptly revived. To the tune of long hours, numb fingers and physical fatigue, the work of restoration is going forward; the rest of us and the Pittsburgh public, too, may feel assured that this great emergency will be met—as Bell Plant always meets its emergencies—with a smile, a punch and a win.

The Ideal Producer

THE desirable telephone worker is that one—we know there are many in our organization—who combines breadth of business judgment with appreciation of the fact that every question has two sides; a type of appreciation which he or she puts into practice in every-day dealings with associates or the public, or both.

This employee understands thoroughly his or her own special duties and endeavors to assimilate such knowledge as may be obtained concerning the other functions in order to be what the name implies—a representative of the Bell System in the broadest significance of that term. As such, the man or woman is never strictly a functional unit but always in the broad sense a company representative with mental shoulders capable of carrying any business load.

This worker has learned that an open mind, a properly controlled temper, and a resolve to play the game fairly are characteristics without which no one may lay claim to success.

As a true representative of a publicserving company, he or she is a servant of the public as well as a representative of the company on whose pay-roll the name may happen to appear.

This person is an ideal telephone worker and is therefore a most desirable and valuable producer.

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Nov. 15

Handling the October Issue of the Philadelphia Directory

The rather stupendous job of delivering 141,000 copies of the current issue of the Philadelphia General Directory devolves upon the Howe Addressing Company, Philadelphia. There are necessary 200 men, 25 single wagons, 5 team trucks and one motor truck, working over a period of 12 days to effect this distribution.

The total number of books in this issue amounts to 201,000, but only the above number are delivered in Philadelphia and vicinity. This directory distribution is the last step in what we may term the "directory job," but here it might be well to insert a paragraph or two on what we, of the Tele-phone Company, have been doing from May 2, when the final lists for the May book were sent to the printer, up to October 10, date of his receipt of listing copy for the now current issue.

September 30 was advertised as the closing date of the October directory. All new and changed listings on line orders which were O.K.ed by the Wire Chiefs up to and including October 3 were inserted in the present directory. The No. 1 copy of the line orders, having gone through the hands of the Wire Chief and Chief Operator, we re

Chief Operator, were later received by the Directory Department, where Miss Rouse and her force prepare subscribers' listing matter for the directories. Lists of all changes are typewritten here in quadruplicate (one copy of which is on gummed paper); a copy is sent to the Publicity Department, where the classified section of the directory is prepared, and from this list are taken all the changes which affect that section of the book. The second copy is sent to the printer, who sets up all the listings and inserts them in his standing matter. The copy on gummed paper is cut up and each listing pasted in its proper place in the galley proofs of the alphabetical section of the directory. The fourth copy is held on file in the originating department.

The foregoing all sounds very simple indeed if one fails to consider the complexities of some line orders and the fact that over the period from May 2 to October 9, 18,788 changes were made in the directory which is now in current use.

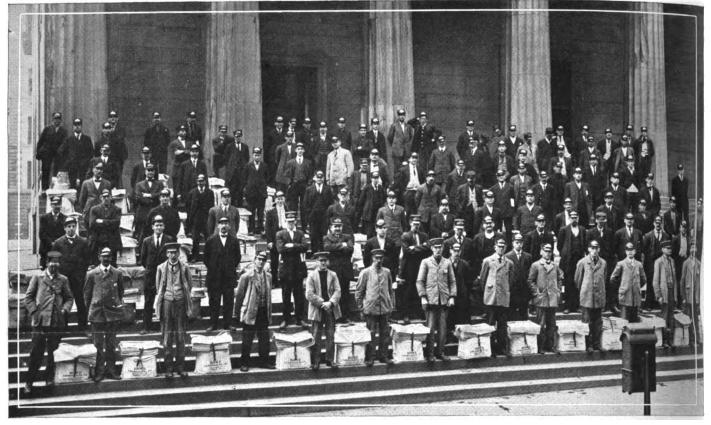
Further, consider that during September there were handled by the Directory Department 1711 subscribers' listings, affected by the Wyoming cut-over, 566 Plant changes, 1611 advance listings, 5125 O.K.ed listings, which is a pretty heavy amount of line order business for one month. It may not be wondered at that few of those who are interested in this work were not in their accustomed places at church on September 4.

So much for the No. 1 copy of the line order and the making of proper changes in the alphabetical section. The No. 2 copy of all line orders goes to the Station Record Clerk, Mr. Schaefer, and his force, where stencil cards are cut and complete subscribers' files kept up to date and made use of for distribution ends as is described below.

No. 2 copies of the line orders are then forwarded by Station Record Clerk to the Publicity Department, where obsolete business listings are removed from the classified section and a check also made against the typewritten lists received

this territory it is necessary to deliver 200 tons of new and to recover 200 tons of old telephone books in twelve days.

The delivery of directories is effected by sending trucks which have been loaded from the cars at Chestnut Street Wharf, out into appointed localities where they are met by the smaller delivery teams and by men in numbers from 20 to 35, who, taking 25 of these directories, place them in a bag made for the purpose, from which they



"THERE ARE NECESSARY 200 MEN, 25 SINGLE WAGONS, 5 TEAM TRUCKS AND ONE MOTOR TRUCK, WORKING OVER A PERIOD OF 12 DAYS TO EFFECT THIS DISTRIBUTION."

from the department which handles the alphabetical listing matter. So much for the preparation of the big Philadelphia book.

After printer's receipt of final copy, twelve working days are necessary to effect these changes in the printer's shop—to read proof, cast the plates, make ready the mammoth presses, to print, to bind and to start shipment of the directories. Beginning with the twelfth day, the printer delivers not less than 30,000 books during each working day thereafter until delivery has been completed.

Some few days prior to the knowledge that the directories will be shipped from The Jersey City Printing Company, subscribers' directory receipts are run off by the Station Record Clerk. On these forms are indicated the number of directories to be delivered at each address, and these are later arranged in routes (following street numbers) by the Howe Company. Ninety-five thousand of these receipts are printed by the Telephone Company, which call for from one to two thousand books each, the latter being the number delivered at Wanamaker's. These receipts the distributor fastens together in convenient numbers and gives to each distributor, who has them signed along his route by the subscribers who receive the books.

Philadelphia, for directory delivery purposes, is divided into eight districts, covering an area 25 by 10 miles, reaching from the Delaware River to Darby and around by Overbrook, Merion, Cynwyd, and from League Island to Andalusia. Over

are delivered to subscribers. As twenty-five of these directories, packed in the delivery bag, weigh seventy-five pounds, it is small wonder that the men are round-shouldered. The single wagons so employed follow along routes defined by the delivery men, and serve as a source of supply to which these men are returning constantly.

Business hours are found to interfere with the prompt completion of the distribution in large office buildings; for instance, the Land Title Building, with 1058 stations, requires three days to cover due to offices being closed and other peculiar contingencies that may arise.

In case of buildings of this nature, books are stocked in the cellar and the proper amount is carried by elevator to the top floor and distributed, and so on down until the distribution in the building has been completed.

The Pennsylvania Railroad in and about Broad Street has 614 stations. They allow their own representatives to accompany the Howe distributor, thus locating the various stations and placing the books thereby.

In the case of large hotels, the branch operator gives the distributor the number of directories necessary to each floor. Bell boys accompany the distributors to the doors of the rooms, it being their work to place the directory by the telephone, as no one outside the hotel employees are allowed entrance.

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No small part of this directory delivery is the matter of chaining directories at chained directory locations. There are at present somewhat less than 2000 cases in which directories must be chained, and special representatives of the Howe Addressing Company are doing this work, following along in the districts in which the regular delivery is being made.

The present issue of the Philadelphia directory required the shipment of six cars from The Jer-

New Castle Telephone Society

The first meeting of the season of the New Castle Telephone Society was held at 31 South Mercer Street, New Castle, on October 10. A. C. Swain was chosen chairman and T. J. Harper secretary, to serve during the coming season. The second meeting of the society was held Thursday, October 30, at which time C. S. Krouse, Plant Supervisor, New Castle District, gave a decidedly interesting talk.



An invitation to visit central offices has been appearing on the reverse side of our bills for telephone service. Many of our patrons have taken advantage of this invitation, but Rev. S. F.

Bacon, 1537 North Nineteenth Street, ninety years of age, sent us a letter thanking us for the invitation. Mr. Bacon mentioned that he remembers when a boy the tin dinner-horn was the most important means of mechanical communication. KOOB.

A surprise luncheon was given to Mrs. Anna V. Githens, Supervisor of the Eastern Revenue Accounting Department, on Thursday, November 6, by her luncheon associates in the dining room at 1230 Arch Street. The affair had been carefully planned and the room was gayly decora-ted in red for the occasion. Mrs. Githens, who entered the employ of The Bell Telephone Company on November 7, 1899, was presented with a beautiful bunch of chrysanthemums by the young ladies of her department. Those taking an active part in this enjoyable luncheon were Mrs. L. Smith, Misses L. Hand, S. Linville, E.

Blakely, S. Scott, E. Murphy and J. A. Murphy.



"IT IS NECESSARY TO DELIVER 200 TONS OF NEW AND TO RECOVER 200 TONS OF OLD TELEPHONE BOOKS IN 12 DAYS."

sey City Printing Company. These cars are routed to Port Richmond over the Reading, from which point they are floated down the river to Chestnut Street Wharf and the Reading yards. If there be any difficulty in locating a car, it may be readily appreciated what a "crimp" is put in the work when so many are idle and itching for books which they would but cannot deliver.

Frequent murmurings come to our ears from subscribers who, knowing that books have been delivered in certain localities, fail to understand why their books have not been received. This explanation is necessary: that the distributors have not reached their section and that were we to make special delivery in all such cases, our delivery costs would be "sky-high." Until such time as means may be devised by which telephone lists may be spirited into homes and offices, such difficulties may be expected—we hope in decreasing numbers—and should be met by those of us who hear them by characteristic telephone courtesy and with the positive assurance that in good season "the Company will provide."

OUR SOCIETIES

The Spare Pair Society

Room 6A, Parkway Building, Broad and Cherry Streets.

Thursday, November 20, 8 P.M. Speaker: Mr. J. D. Kennedy, Manager, Philadelphia House, Western Electric Company. Subject: "Supplies."

Camden Telephone Society

At the first meeting of the season of the Camden Telephone Society the following officers were reëlected for the ensuing year:

W. F. Repp, President.

T. B. McClain, Vice-President.

S. H. Croxton, Secretary and Treasurer.

The second Thursday evening in each month has been selected on which to hold the regular meetings of the society in the future. New committees have been appointed and the prospects for an interesting year is assured.

At each meeting during the coming year there will be, in addition to the regular speaker of the evening, a musical program and other forms of entertainment.

Camden Telephone Society meetings are largely attended by the employees, and it is as congenial and sociable a crowd of men as you will ever see assembled.

At the November 13 meeting R. C. Mason, Managing Editor, talked to the society about "The Telephone News."

Triangle Club of Allentown

The Triangle Club, composed of the employees of the Allentown, Easton and Bethlehem Districts, held its first meeting of the year in Crockery Hall, Allentown, on October 16.

Mr. S. M. Palm, Plant Supervisor at Allentown, read a paper on "Plant Progressiveness," showing the rapid development of the system.

Wheeling Telephone Society

A meeting of the Wheeling Telephone Society was called for October 21, when Plant and Commercial held conferences and field employees were able to attend. A paper entitled "Collections," by Local Manager Perry, Cambridge, Ohio, was read

A board of eight directors was elected to succeed the old board of fifteen, and after the regular session the new board elected the following officers for the ensuing year: President, V. B. Fitzpatrick; Vice-President, H. G. Bills; Secretary-Treasurer, W. J. Baggs.

The Telephone Society of Harrisburg

The next meeting of the society will be held on Monday evening, November 17, when Mr. F. C. Moody, Plant Superintendent, Philadelphia Division, will give a talk on "What We Want."

3290 Club

The regular monthly meeting of the 3290 Club will be held at Lansdale, Pa., on Wednesday evening, November 19, at 8 o'clock. Mr. C. Godfrey, Plant Supervisor Outside Districts, will be the speaker. Subject to be announced later.

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Nov. 15

Western Electric Company's Switchboard Department

By G. G. Young, Buyer, Philadelphia

The switchboard department consists of a group of men working directly in conjunction with the telephone companies for installation and service on central office equipments and P.B.X specifications. At the present time there are 363 central



LEFT TO RIGHT: H. W. BUBECK, J. D. LOZIER, JAMES V. BARNWELL (FOREMAN OF WIRING DIVISION) IN SHIRT-SLEEVES. A. M. HERSCH STANDING.

office jobs on schedule, some of these for completion as far ahead as 1917. In addition to standard apparatus, orders for furniture, fixtures, etc., required for completion of new central offices or additions to older installations are handled by this department. A glance at the routine shows revision of scheduling on jobs, editing to conform with standard practices and wording both familiar to shop, central Hawthorne and outside suppliers. The largest part of the department's work during the past year has been on No. 1462 switchboards; principal installations, in addition, being five No. 10 sections for Boggs & Buhl department store, Pittsburgh, two additional No. 10 sections for the Philadelphia Company, Pittsburgh, five No. 10 sections for Kaufmann & Baer department store, Pittsburgh, which were built complete in the Philadelphia shop. It requires approximately three months to complete one of these installations.

The local organization furnishes complete throughout two-position switchboards which can be equipped for a total of 310 lines, 30 trunks and 34 cord cir-

Private branch exchange switchboards of all types, with the exception of the two-position boards, are carried locally equipped with certain equip-The normal time allowed for ment. doing this work is three days.

As an illustration of the amount of work done by the Philadelphia Shop Wiring Department, it is interesting to note that in the last year we have repaired 245 boards, changed the equipment on 220, built and equipped 20 special switchboards of various types, built 30 two-position boards, 70 magneto central office boards and 100 small test sets, such as keyboard, and several central office test sets.

In conjunction with the switchboard wiring department an inspection department is operated where switchboards are given a very careful test before being shipped. In a great many instances it takes as long to test a switchboard as it does to equip it. In testing these boards, they are put through a test as near to the actual conditions under which they will operate as is possible.

Traffic Triumphs

Woodland Operators Commended

Miss Catharine E. Gaffney, Operator, and Miss Margaret A. Harley, Monitor Operator, are the employees referred to in the following letter from Mrs. Helen Cumings, Woodland 2694-A:

"I wish to thank you for the very efficient service rendered me by two of your operators in the Woodland exchange on October 26, at about 7:45 P.M. Two men were trying to get into my house while I was alone, and one threatened to shoot me, but I rushed to the telephone and told the operator, who assured me that she would send help to me. Then another operator asked for my address and took the call from me, and the police were here inside of ten minutes, in answer to her call.'

Willow Grove Service Pleases

The following extract is from a letter written by Mrs. C. S. Tyson to the Germantown office:

"About a year ago I sent in a complaint regarding the night service of your telephone station at Willow Grove. During the past six months I have had need for two very important night calls and I wish to tell you of the prompt service rendered in both cases."

This is one of the results of the efficient work of Miss Helen Hamilton and Miss Hermina Wieler.

Praise for Cynwyd Operators

Here's a letter we are proud to print from Mr. George Merrill:

"On behalf of the Neighborhood Club of Bala and Cynwyd I want to express appreciation of the courtesy of operator at Cynwyd exchange on the evenings of October 22 and 24, when continued calls were made from Nos. 377 and 61-D, extending over several hours each.

"Operator was not only courteous but prompt and cheerful and greatly facilitated committee work."

The operators handling these Cynwyd calls are Miss Sarah B. Kelly and Miss Emily F. Mc-Ilhenny.

LEFT TO RIGHT:
BACK ROW—LANE, McOUAIDE, MANAGER: WEIST, SCOTT.
MIDDLE ROW—SHAY, GREENE, DAVIS, HAYES, DOUGHERTY.
BOTTOM ROW—HARTER, McKNIGHT.

Collection Efficiency

Per cent. of Unpaid Accounts at End of Month to New Revenue Net

SEPTEMBER, 1913

PHILADELPHIA DIVISION

| | | ~ 111310M | |
|--|------|---------------------------|-----------|
| Central Office Philadelphia Germantown | 34.7 | Central Office Chester | Per Cent. |

ATLANTIC COAST DIVISION

| Norristown Doylestown Dover West Chester Bridgeton | 21.7 24.2 25.1 | Atlantic City 29.8 Trenton 31.7 Camden 34.2 Wilmington 38.1 |
|--|----------------------|---|
| Harri | SBURG | Division |
| Lancaster | 6.0 | Reading 26.5 |
| Ridgway | 6.7 | Nanticoke 26.5 |
| Altoona | | Pittston 27.4 |
| Wellsboro | 13.6 | York |
| Huntingdon | 15.9 | Clearfield 97.6 |
| Carlisle | | Waynesboro 27.8 |
| | | |

Bethlehem 17.8 Williamsport 19.9

Honesdale 21.1

Bloomsburg 21.5 Towanda 24.2 Allentown 24.3

Berwick 24.3

Sunbury 25.0

Lewistown 25.9

Pottsville 44.6 Bellefonte 49.8 Scranton 26.0 Chambersburg 26.2 Emporium 49.8

PITTSBURGH DIVISION

Waynesboro 27.8

Easton 28.5 Wilkes-Barre 30.8

Hazleton ... 33.7 Carbondale 34.9 Lock Haven 35.7

Shamokin 39.3

Lebanon 41.0

Harrisburg 41.6

| | IIIISBUKGH | DIVISION |
|----------------|------------|-------------------|
| Warren | 18.1 | Uhrichsville 34.5 |
| Clarksburg | 19.4 | Corry 310 |
| Scottdale | 21.6 | Greenville 35.0 |
| Morgantown . | 22.3 | Indiana 350 |
| Greensburg | 23.5 | Steubenville 35.0 |
| Fairmont | | Uniontown 35.2 |
| Salem | 23.9 | Bradford 35.8 |
| East Liverpool | 24.0 | Coudersport 37.6 |
| Bedford | 24.7 | New Castle 37.6 |
| McKeesport | 25.2 | Pittsburgh 39.7 |
| Punxsutawney | 26.9 | Charleroi 40.3 |
| Warren | 27.7 | Dubois 40.4 |
| Oil City | 27.8 | Sharon 40.5 |
| Rochester | 28.0 | Youngsville 40.6 |
| Latrobe | 29.3 | Cambridge 42.0 |
| Franklin | 29.6 | Carrollton 44.5 |
| New Kensingt | on 30.2 | Washington 44.6 |
| Marietta | | Parkersburg 50.6 |
| Sistersville | 31.1 | North East 53.2 |
| Wheeling | 31.2 | Grafton 55.3 |
| Connellsville | | Erie 60.9 |
| Butler | 32.7 | Meadville 76.4 |
| Ebensburg | | Johnstown117.5 |
| - | | - |

Another Championship

As Philadelphia can claim title to having the best baseball team in the world, so can the Western Electric Company justly claim to have the best baseball team in the Philadelphia Electrical League. The accompanying photograph represents the team which so decisively won the Alfred F. Moore silver loving cup, and also the team which has defended the cup and title for five years. Owing to the exceptional playing ability of the Western Electric boys, they so far outclassed their rivals that the trophy now remains in their permanent possession. The original team was made up of the following players: Harter, catcher; Hayes, first base; Shay, second base; Scott, third base; Weist, short-stop; Dougherty. left field; McKnight, center field: Barnwell, right field; Green, pitcher; Davis, pitcher; McQuaide, manager.

Cooperation and McQuaide's good management won the games.

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Pioneers' Convention

By C. A. Janke

■HE main party of the Telephone Pioneers of America from the East attending the third annual reunion at Chicago left New York at 8 A.M., Thursday, October 16, in a special Pennsylvania Railroad train consisting of all-steel vestibule equipment (club smoker, dining car, twelve-section drawing room, sleeping cars, and compartment observation car), stopping at Newark, Philadelphia and Harrisburg to take on delegations en route. While many of the men-

folks got together in the smoker, the ladies of the party occupied the observation platform most of the day. The weather was mild and delightful and the mountains presented a gorgeous appearance in their

autumnal dress.

Pittsburgh was reached about 6:30 P.M., and an announcement was made that the train would remain at that station until 9 P.M. After dinner a number of the party took a stroll through the main business streets of Pittsburgh, the opportunity for a walk being very welcome after the ten hours spent on the train. Promptly at 9 o'clock our train pulled out of Pittsburgh, and by 11 o'clock most of the party had retired to their berths to sleep if they could. During the night the train was delayed by a wreck which caused us to be about one and a half hours late in reaching our destination. On our arrival at Chicago, about 9:30 A.M. Friday, the party was given a most cordial and hearty welcome to Chicago by a committee of ladies and gentlemen who directed us to taxicabs furnished by the Company by which we were taken to Congress Hotel. About 10:30 A.M. the regular business meeting of the association was called to order in the Gold Room of Congress Hotel by Mr. Theodore N. Vail, President.

Mr. Vail then introduced Mr. B. F. Sunny, who welcomed the Pioneers to Chicago. Following Mr. Sunny's address Mr. Frank H. Bethell, Vice-President, presided over the meeting until the election of new officers, after which Mr. Thomas D. Lockwood, the newly elected First Vice-President, took charge of the meeting.

In the evening the Pioneers and their ladies were entertained at the Studebaker Theater. The title of the play was "Telephonery, Past and a musical and literary farce prepared and presented "in honor of the Telephone Pioneers of America at their third annual meeting, October 17, 1913, by employees of the Bell Sys-The play was very cleverly written and well acted and thoroughly enjoyed by all, as was evident by the hearty applause that followed each act. The representation of an old-time exchange, the switchboard occupying the wall space the entire width of the stage, and equipped with long cords and plugs operated by boy operators who made about as much noise and confusion as might be imagined, was very amusing and thoroughly enjoyed by the audience.

The musical numbers were excellent and well rendered, and everybody appeared to be highly pleased. The work of the chorus was especially

Starting at 9:30 A.M., Saturday, October 18, over one hundred touring cars and limousines left

Congress Hotel en route for the Hawthorne works of the Western Electric Company by way of the parks and boulevards. Each person was given a pennant as a souvenir—a blue felt showing the symbol of the organization and "Chicago 1913" in gold felt letters.

A stop was made at the Administration Building of the Central Group of Bell Telephone Companies. This building is twenty-two stories high and is a magnificent fireproof structure. Ushers met the party at the entrance and conducted them through the building, showing everything of interest, and also took them to the roof, from which a fine view was obtained of Chicago and Lake Michigan.

While on the roof we were given a hearty welcome and cheer by the student operators who were taking their daily open-air drill and exercise. Each operator wore a sash over her shoulders with the word "Welcome" in large letters displayed thereon. Any way we would turn in any part of the building, we would find an usher ready and willing to answer any questions, and when we returned to our cars we took with us a very pleasant impression of our visit to the largest telephone building in the world.

After a very interesting ride through the beautiful parks and drives, we reached the Hawthorne works of the Western Electric Company. Those who had not made too long a stop at the telephone building reached the works in time to see them in full operation, but owing to Saturday being a short workday, the later cars arrived too late for their passengers to see the works in operation. About one o'clock a most enjoyable luncheon was served, and during the time we sat at the tables we were entertained by music rendered by the band composed of Western Electric Company employees. After luncheon a large number of the party witnessed a game of baseball between the teams of the Western Electric Company and the Chicago Telephone Company. On our return to the hotel, the chauffeur stated we

TAKING THE TRAIN AT PHILADELPHIA, PA.

had covered nearly sixty miles in the city of Chicago. The trip was delightful from start to finish and will be pleasant to recall in after-years.

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The dinner, to which about 500 people sat down, was given in the Gold Room of Congress Hotel, Saturday evening, October 18. The room was lighted by candles until all were seated, when the electric lights were turned on. The candlesticks were a novelty, as they were made of the shells of telephone receivers. The shades showed the symbol of the association and the Blue Bell. After the dinner was over, the waiters provided boxes so that each guest could carry away a candlestick as a souvenir.

The menu contained on the inside page an excellent likeness of Dr. Alexander Graham Bell, and of the President, Mr. Theodore N. Vail, and blank pages for autographs, of which many were exchanged. The writer took advantage of an opportunity to obtain the autograph of the President, and considers himself very fortunate in securing it. Mr. Vail, on request, kindly placed his autograph under his engraved photograph.

A large number of the party from the East left Chicago for home on Sunday the 19th; others of the party made stops at Pittsburgh, Detroit, Buffalo and Niagara Falls; and this added to the pleasure of the visit to Chicago by seeing the points of interest in other cities on their way home.

We all feel grateful to the American Telegraph & Telephone Company, the Chicago Telephone Company, the Western Electric Company, the officers of the Pioneers' Association, the various committees and the employees who so generously and painstakingly entertained us and made our visit to Chicago so pleasant.

District Manager McClain Speaks before Camden Rotary Club

A paper entitled "Joint Telephone and Telegraph Work" was read by T. B. McClain, District Manager, before the Rotary Club of Camden at the weekly luncheon held at the Hotel Ridgway on October 28. The paper outlined in a brief and interesting manner the many advantages afforded the public by operating the telephone and telegraph business jointly. The various kinds of telegraph service and the respective rates were quoted. In closing, Mr. McClain invited the members of the Rotary Club to visit the new joint office and also the central office, collectively or individually.

The paper was very favorably received, and as evidence of the interest created several members expressed their desire to visit our central office at once. A party of twenty was made up and taken in automobiles to our central office, and with the assistance of Mr. J. R. Raynor, Wire Chief, and Miss Sparks, Chief Operator, the tour of inspection was made most interesting to those who had availed themselves of the opportunity, and all came away with a better idea of our central office work. Mr. McClain shared the bonors at the luncheon with Mayor Charles H. Ellis, another speaker and guest of honor.

The "No-Hunger-Strike" Cover

Thanksgiving Day and the fact that the farmer of to-day uses the Bell to market his fowl are responsible for our cover design this issue.





Trenton Cable Transfer

Cable Division of Philadelphia Plant Does Splendid Job

In the capital city of the state of New Jersey the growth of business has made it necessary to provide greater central office facilities. To fulfill these requirements a new central office building has been planned and is in course of construction.

In planning the new building it was found that the conduit run from the existing central office to the central office manhole was in the way of the foundations of the proposed structure. To overcome this difficulty the cable vault of the new building was constructed and the permanent new cables run from the old office manhole through the new one and the vault to a point in the latter where the vertical cables from the new main frame will pick them up, upon the completion of the building.

In the plans it was proposed to half tap these cables. As it would be necessary, after the half tapping had been done, to open the splices to cut out the old cables, it was decided to accomplish the transfer by making cable throws. By doing this the old cables were cut out as the new ones were cut in. From the ends of the new cables in the vault, cables of the same size as the existing cables on the main frame were run to the latter. Then the transfers just mentioned were made.

This brief description may make it seem that this job was a simple proposition. On the contrary, it is difficult, in fact almost impossible, to convey in a few words any idea of the difficulties encountered and the hard and conscientious work on the part of all concerned to accomplish the desired ends without any interruptions to the service. In many instances it was necessary to pull in a large cable, then transfer the lines of several existing small cables to it, in order to obtain spare conduits for the installation of other cables. All this was accomplished and the work completed in the specified time.

The following data may be of interest:

| 600 | pairs | | | | | | | | | | | | | | | | 4041 | feet |
|-----|-------|----|--|--|--|--|--|--|--|--|--|---|---|---|------|---|----------|------|
| 480 | " | | | | | | | | | | | | | | | | 473 | 44 |
| 360 | " | | | | | | | | | | | | | | | | 927 | 66 |
| 300 | " | | | | | | | | | | | | | | | | 152 | 44 |
| 240 | 44 | | | | | | | | | | | | | | | | 1556 | " |
| 120 | " | | | | | | | | | | | | | | | | 1388 | 44 |
| 100 | " | | | | | | | | | | | | | | | | 150 | " |
| 90 | 44 | ٠. | | | | | | | | | | | | | | | 105 | 44 |
| 60 | 44 | | | | | | | | | | | | | | | | 248 | " |
| 00 | _ | | | | | | | | | | | • | • | • | | - | 9040 | |

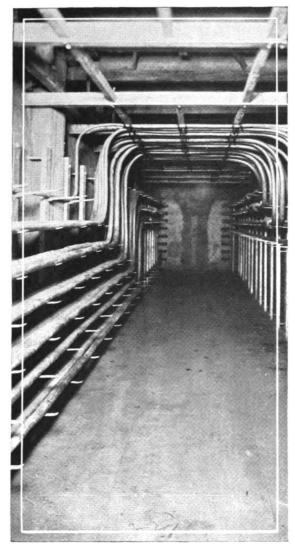
Amount of Cable Pulled Out

10,120 feet, ranging from 60 to 600 pairs.

Number of Straight Splices Made



LEFT TO RIGHT: E. JONES (FOREMAN), W. GREEN, I. MUNZ, G. McCANN, R. H. NEILL, W. McKNIGHT, R. S. CRIST.



CABLE VAULT SHOWING TEMPORARY AND PERMANENT CABLE WORK. BACKGROUND BEYOND HORIZONTAL SPLICES. PERMANENT WORK; FOREGROUND, TEMPORARY WORK.

| 480 r 480 | 3 |
|----------------------------|----|
| 360 x 360 | 10 |
| 240 x 240 | 11 |
| 300 x 300 | 1 |
| 120 x 120 | 9 |
| 100 x 100 | 2 |
| 90 x 90 | 1 |
| 60 x 60 | 2 |
| Total | 69 |
| Number of Multiple Splices | |
| 5-way splices | 1 |
| | 9 |
| 3- " " | 20 |
| | _ |
| Total | 30 |

The number of cable pairs involved in the cut was 9300; the number of working lines, 8400. Thirty-two working cables were changed during the cut.

This job was started on September 17. Some delay was encountered, as the cable vault was not completed until a week later. On September 30, work was again halted, as the Trenton Fair opened at that time and the city officials would allow no outside work, which required opening manholes, to be done during this period. Work was resumed on October 6. It was necessary to work night and day and Sundays in order to complete the work and relieve the old conduit line by October 28.

8400 working lines were handled in these transfers, and no trouble was caused in any case. Supervising Foreman Dickinson and Foreman Jones, in immediate charge, as well as Plant Supervisor Zerman and Wire Chief Crist and all their subordinates, deserve great credit for the splendid manner in which this job was handled.

The Observer's Impressions of a Cut-Over

UR train was passing a lately risen concrete structure. Its new whiteness forced itself upon one's attention almost as a spot of light will attract. It was the topic of conversation with two men who sat opposite me. One said, "I wonder who it is for."

"Haven't heard," answered the other. "Possibly it's a new Bell Telephone place. They're always at it. One building is scarcely occupied before the foundations are laid for another."

Such an expression of opinion indicates that the average citizen has a marked interest in the doings of a corporation like the Bell, and if he feels that the new building which he sees will beautify his town, or if he learns that the new cable which is being pulled in will enlarge and better his service, he also develops a sense of pride and ownership.

I know that most Bell people have a very just pride in their Company's progress and "growing-up." They shouldn't be at all bashful to spread the good news about their Company's doings for every telephone user is sure to be interested.

No one could fail to be interested in the raising of the curtain upon a new central office. Here is equipment which represents, I suppose, three-score or more thousands of dollars. At least six months have been spent in construction work, and the testing of the equipment has required an amount of patience worthy of a Job.

Up from their subterranean vault the cables have been brought, and the wires hidden within them have been ranged in orderly array upon the frames in the terminal room. Then the wires have mounted one floor more until they reached the new switchboard.

In the operating room, everything is also in readiness. The number plates have been placed and the markings are painted, while the new opals glisten with their varicolored and cabalistically marked caps in their rows above the answering jacks. Tests, tests, and then some more tests have been made.

Such thoughts as these may have flitted through the minds of the twoscore or more telephone people who were present at the cut-over of this new office recently. Perhaps many of them also thought, as they watched the operators take their places at the switchboard for the first time, how unique was this occasion at which they were privileged to be present—an occasion which was never to be again.

Here was the switchboard apparently as lifeless and inanimate as anything of wood and metal could be. The quietness of the operators as they sat waiting, after having made a few preliminary examinations, but accentuated the feeling of inertness. But in five or perhaps ten minutes this lifeless hulk, those motionless operators will awaken. Afterward, until man knows not when the board will continue to wink and blink and thrill its many talk-nerves with life, presided over by a succession of the high-priestesses of telephony, who will never for an instant cease their faithful ministrations.

I wish that I might properly reconstruct the scene at that cut-over so that you might feel as I felt. I would show you a brightly lighted operating room, the switchboards all glistening in their newness; also two groups of people—one the operators at the board, the other the men talking and examining the equipment. Everyone, apparently, is waiting—waiting for the first sign



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of life. The Traffic Supervisor is conferring with the Wire Chief, who, by the way, has been the captain of a half dozen or more successful cut-overs. They compare watches, then we hear the Supervisor say, "On the minute of eleven, Chief." The Wire Chief leaves the room; our interest rouses. We take out our own timepieces and wonder nervously whether the Traffic Supervisor sets his time by Uncle Sam's message over the W. U. circuits or the factory whistles. Then we hear a faint order coming from the terminal room downstairs. It sounds like "Cut." In a moment a light flashes up, then another, and, before we realize it, an operator with a deft manipulation of cords and keys has answered the first call in the long roll which will spread over many years to come.

That's the bare details of the cut-over. But how about the work which prefaced it? I learned something of this when we shook hands with the Supervisor and complimented him on the new office. Someone who ought to know said that he had never seen a building so complete at the time of the cut-over.

The Traffic Supervisor attributed this to the way in which everyone connected with the work pulled together. He said that in all the multitudinous final details, the finishing touches on the equipment, the completion of the tests and the furnishing of the building, including the operators' retiring rooms, everyone responded cheerfully to the calls for more steam and each worked overtime as gladly as if he or she were going to a "first night." "There were no pullbacks," said the Traffic Supervisor. "All were ready and willing to work together with enthusiasm and common sense."

That's the sort of spirit which built Panama. Ray Stannard Baker, in an article in the November American Magazine, calls it "the new patriotism." Read about it. Bell people know this spirit which Colonel Goethals, of canal rame, characterized as "an irresistible and irrepressible spirit of enthusiasm."

"Hunger and greed," Mr. Baker says in his article, "were not the chief incentives of the men who fought at Gettysburg, nor of those who worked night and day to save the flood sufferers at Dayton," and (we might add) nor of the hundred and fifty thousand people who form the great Bell Army.

The newly appointed Chief Operator at this central office who, I understand, has won her spurs after eight years with the Company, expressed something of this "new patriotism" in her first message to her operators. It appeared on the bulletin board in the cosily and artistically furnished retiring room and read:

"Girls:—We will make 100 our first week and every other week. Let us try to please subscribers in every way possible."

Here is hoping that this new Chief Operator and her corps of operators will earn, by their efficient work, the title of the 100 per cent. office. And here is a secret: If you asked me I should say that the new Chief has the "right idea" which will surely make the century marks roll round to this office as fast as the passing weeks themselves.

The Observer

Vibrations

He who knows how to serve others is master of himself.

Telephone operators in Egypt are required to speak English, French, Italian, Greek and Arabic.

While doubt stands still confidence can erect a sky-scraper.

Mr. N. C. Kingsbury, Vice-President, A. T. & T. Co., contributes to *Telephony* of October 25 "Telephony Present and Future—Problems and Hopes." Read it.

"Laugh and the world laughs with you" and puts you down as the right sort.

A Public Utilities Commission of three members, to be appointed by the Governor, is created by the recent passage of a legislative enactment in the state of Maine.

The chap who takes things as they come doesn't get as many as the other fellow.

After thirty-five years of active service A. P. Crenshaw, Assistant Secretary and Assistant Treasurer of The Chesapeake and Potomac Company, has retired.

After all, the knocker to the contrary, life is apt to be pretty much what you make out of it.

In Harper's Magazine for November the first article on "Letters of a Diplomat's Wife in Washington" contains interesting references to the telephone which had just been invented—1878.

Folks that think too much of what's comin' most likely won't attend to what there is.—Eben Holden.

Justice Seabury, in the Appellate Division of the Supreme Court, New York, on September 30 rendered a decision to the effect that telegraph companies are not liable to heavy damages for errors in transmitting messages written in cipher.

Don't let a little reverse trouble you. Remember a worm is the only thing that can't fall down.

The three-minute fire of November 5 in the Bell Telephone Exchange at Montreal, Canada, put the entire telephone system out of commission to such an extent that service will not be resumed for thirty days.

Keep the telephone of your mind forever transmitting thoughts of Love, Purity and Joy; then when selfishness, lust or hate try to call you up, they will always get the Busy Signal. Afterwards they will forget your number.

A very interesting account of the ravages of the white ant among telegraph and telephone circuits is given in the October number of The Post Office Electrical Engineers' Journal of London, England. It describes and illustrates these extraordinarily active insects and the havoc they have created in various parts of Australia with wooden poles for overhead circuits, and even in one instance, at Adelaide, with a lead-covered 104-pair cable laid in multiple duct tile conduit. The cable was laid in 1907, and within four and one-half years a stretch of some twenty feet had its sheathing badly eaten away.

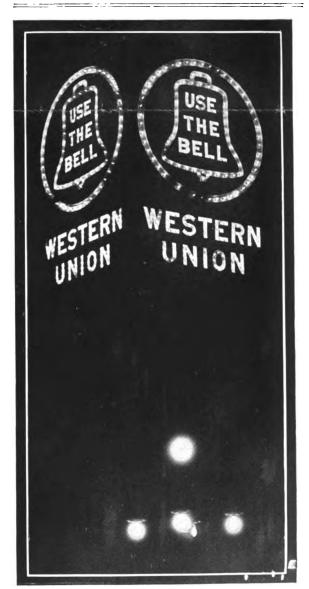
It is stated that there are over 1200 telegra phers in the ranks of the United States Army

There is only one person who can mark you as a failure, and that is yourself.

A novelty in postal service was suggested at the convention of supervisory post office employees at Toledo. The proposed plan is to have a special delivery postal card to sell for six cents, the postmaster to be required to telephone the message to the address immediately upon receipt of the card.

Don't wait until the boss starts to crank up—be a self-starter.

A contemporary reports that thousands of would-be telephone subscribers in Vienna, Austria, are unable to secure telephone service because of the fact that the government, which operates the telephone system in that country, has been diverting for military purposes the money ordinarily spent on telephone maintenance and development. Applicants for service are compelled to wait a year or more for their installations, nearly all the workmen have been dismissed, and the opening of three new central offices, promised for this autumn, has been indefinitely postponed.



The Brightest Spot in Germantown

Our joint telephone-telegraph office at No. 26 West Chelten Avenue as it looks at night. This sign containing 490 lamps is visible for many blocks.

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JOSIAH MARVEL, PRESIDENT, CHAMBER OF COMMERCE, WILMINGTON

Progressive Wilmington By J. S. Hamilton, Publicity Manager, Chamber of Commerce, Wilmington, Del.

Wilmington has more telephones per capita than any other city of its size except Washington, D. C. The people of Wilmington believe this is significant because fundamentally it is an indication of their progressiveness. The people of Wilmington not only subscribe for the telephone but they know how to use it, as a recent episode in the history of the Chamber of Commerce will illustrate.

This Chamber of Commerce is made up almost exclusively of Wilmington business men, but the activities of the organization comprehend in its scope the cultivation of a close business relationship with the people of Delaware and the Eastern Shore of Maryland and Virginia. During the past nine months beginning with the organization of the Chamber of Commerce successful trade excursions have been made into this tributary territory and New Jersey and the results have been the beginning of a relationship which is bearing fruit every day.

As an illustration of how the telephone is used in furthering and promoting this campaign, it is only necessary to give a brief history of a boost parade which was given in September to help the Delaware State Fair. The latter enterprise had had a precarious existence. Bad weather two or three years during fair week had weakened the financial props of the organization and at times it appeared to be tottering.

The Publicity Department of the Chamber of Commerce in looking over its field concluded that the fair was one of the most promising factors in view to draw people to the town. It was conceived that a parade of business men marching to the fair ground on opening day would prove a boost which would produce results.

One thousand umbrellas, each bearing the legend "Do it for Wilmington," were ordered. No one was asked to take more than 25 umbrellas, and only a few took this many. Towards the last day a few hundred umbrellas remained un-The manufacturers, who it was disposed of. feared might frown on such things, were solicited by telephone and the response was surprising to the parade promoters. With only a refusal here and there the stock on hand was sold in less than

The umbrellas being sold, getting the people to turn out was another thing and the real big difficulty in the adventure. Personal solicitation within the limited time was impossible, and here again the telephone was used with good effect. The value of the parade was pointed out and the importance of having the business men in line was exploited. The result was the most remarkable parade ever held in Wilmington, and it is only justice to say that the telephone contributed largely, very largely, to the success.



"THE MOST REMARKABLE PARADE EVER HELD IN WILMINGTON."



Norristown District

On the afternoon of Friday, October 17, the railway agent at Corson Station, Pa., was run over by a train and fatally injured. Our operator at Plymouth Meeting, Miss Julia Connelly, was appealed to for aid. She secured a doctor, notified the Charity Hospital at Norristown to send an ambulance, and also informed the agent's wife in Conshohocken and his mother in Norristown



MISS J. CONNELLY

neither of whom have telephones, of the accident. All this was done in less than fifteen minutes; Miss Connelly sending somebody from her home to deliver the message to his wife.

BECRER.

Dover Sub-District

Salesman J. B. Warner, in charge of the Milford District, has succeeded in concluding a multiparty proposition southwest of Milford, Del., which closes up the only gap in a complete development around that exchange. With only five miles of pole line to be constructed, he secured 20 applications in one day. In all there will be about 35 stations with about five miles of pole line, together with an extension totaling about 8 stations and taking about two miles of pole line. This work will give a 100 per cent. development in that section.

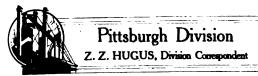
PRINCE.

Trenton District

Additional underground facilities will be placed shortly in the vicinity of Hamilton Avenue. It will do away entirely with the present aerial cable between Chamber Street and Olden Avenue. The new work will consist of about 4000 feet of creosoted wood subway consisting of one to five ducts, and 10 brick manholes will be built. In this conduit about 4000 feet of cable containing from 60 to 300 pairs of wires will be placed; 23 poles will be removed and 402 feet of aerial cable. The new work will cost in the neighborhood of \$59,000.

15





Erie District

The Erie Plant Department began work during the week of October 27 on the new outside plant at North East and Sheffield, Pa. This work, when completed, will give both these towns a practically new outside equipment.

The employees in Erie find that it is a profitable practice to take down the names of persons who use the office booths as being good prospects for telephone service.

On Saturday, October 18, the new exchange at Union City, Pa., was put into ser-The cut-over took place without a hitch, sharp at midnight, and but one light showed on the This board. new proved to be a receiver off the hook. Supervisor Traffic W. R. Page and Plant Supervisor S. B. Williams were in charge. District Chief Operator Miss Williams and Erie Chief Operator Miss Hennis were at the new board. The first connection was made five seconds after the cut-over.

During the past year and a half about \$17,500 has been expended in Union City and the result is an entirely new plant, inside and out. The new switchboard is four-position and has a capacity of 1600 lines. It is of the common battery type. At the time of the cutover there were 600 stations connected 150

of which were multiparty. There were 300 lines, 40 of which were multiparty and 10 toll. The Bell opened the first exchange in Union City seventeen years ago with 24 subscribers. Local Agent Carroll promises a net gain of 100 stations within the next year. The gain this year has been 48 stations on the strength of the promised new equipment

In addition to the new operating room and terminal room a rest room with conveniences has been provided for the operators. The Chief Operator is Mrs. Clara Lewis and the Wire Chief is W. L. Bayley.

In the outside plant 2½ miles of aerial cable replaces 10½ miles of open wire, and 30 miles of new wire has been strung. Underground cables are used from the central office pole to the terminal room.

Johnstown District

A farmer living several miles from Ebensburg recently signed a contract for service on a new multiparty line. A few days after signing an application he remarked to his wife that he

thought he would cancel his application, as \$1.50 a month was more than he could afford. After some persuasion he consented to placing the instrument, which was installed October 1. On October 27 he came to the office, paid his bill, and remarked that he had two boys and himself on the farm, and as work on the farm was practically finished, he used the telephone in securing work for team and boys in town and had made in less than a month about \$70, all through the telephone.

The quarters of the Traffic Department have been thoroughly renovated, and standard lighting fixtures, floor and wall coverings placed in each of the following offices: Bolivar, Irwin, Portage and South Fork.

WARRICK.

General Directory for the past two weeks, has established a mighty good canvassing record. Beginning the canvass on October 18, Mr. Held sold up to October 31—thirteen working days—over two thousand six hundred dollars' worth of business. As none of the contracts he took were exceptionally large, the daily average of \$166 seems worthy of mention.

Recently, while returning from a business trip to Sewickley, Mr. Held noted five Pittsburgh business houses advertising in the trolley cars. Consulting the telephone directory, it was found that none of these firms advertised in the directory. Calling upon each concern, Mr. Held secured five advertising contracts for space in our directory, and of these four firms took marginal space and one the inside back cover.

New Castle District

The new Saegertown (Pa.) exchange has been opened with about 70 stations. One of the Plan "A" rural companies, the Cussewago Telephone Company, connects with this exchange and has approximately 40 stations.

A private branch exchange consisting of two trunk lines and fifteen stations was recently installed for the Department of Health of Pennsylvania at its new Tuberculosis Sanitarium located at Cresson, Pa. The stations are all located in the main building and surrounding cottages, the latter being occupied by the medical staff of the sanitarium.

HARPER.



An Original Banquet to District Manager Lawlor

(1) H. W. WOOD, TRAFFIC SUPERVISOR (2) R. W. HEALEY, SPECIAL AGENT (3) G. E. LAWLOR, DISTRICT MANAGER
(4) J. D. GORDON, PLANT SUPERVISOR

At a banquet given at the Fort Henry Club, Wheeling, W. Va., for G. E. Lawlor, Wheeling District Manager, the table decorations were appropriate as well as beautiful, a miniature telephone system surrounding the central mound of chrysanthemums. In front of the guest of honor was a central office building with the name "The Central District Telephone Company" conspicuously displayed. From this point wires extended to telephone poles set at intervals around the table, their base surrounded with maidenhair fern and flowers. At each guest's side was a small telephone with a bell attached that rang at the toastmaster's call. The place cards were tiny telephones and cards tied with blue ribbons.

Pittsburgh District

Directory Advertising Salesman S. J. Held, who has been selling space in the Pittsburgh

Uniontown District

In addition to one short-line crew and a large force of men under the Construction Department

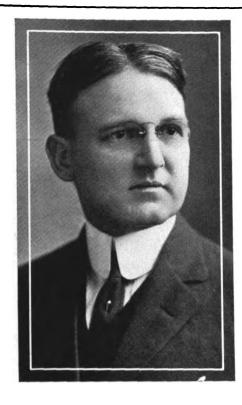
stringing new cable in several parts of the city of Clarksburg, the Plant Department has placed an additional short-line crew to take care of new business. Many lines are being built to the new coal mines and factories that are springing up in all surrounding territories.

MISS HEPPLEWHITE.

Wheeling District

A "Correct Expression Bee" was the nucleus around which centered a general good time when Traffic entertained operators from the Wheeling Sub-District offices. Captains were selected, sides chosen, and the "bee" was on. Miss Clara Conrad, Wheeling Chief Operator, put questions to the operators which were answered in the phrasing and tone that they would use if at the switchboard, the slightest technical difference being counted an error. To the two girls, local and toll, standing longest went first honors. Miss Mary Arn (toll) and Miss Alice Hitch (local) were the winners of this warmly contested first place.

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WALTER B. CLARKSON

Pittsburgh Division Manager

Born June 29, 1875, in Fauquier County, Va. Educated at public schools and in the Columbian Law School, Washington, D. C.

Entered Bell Telephone service at Washington, D. C., on May 18, 1897, as a clerk. He later became the Contract Agent at Washington.

Agent at washington.

Appointed Special Agent, Philadelphia, Pa., May 1, 1908.

Appointed Atlantic Coast Division Manager, January 1, 1909, and Pittsburgh Division Manager, June 1, 1910.



ALBERT E. BERRY

Philadelphia Division Manager

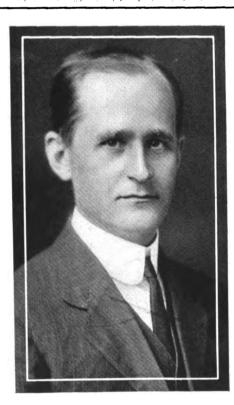
Born August 19, 1878, at Washington, D. C. Born August 19, 1878, at Washington, D. C. Educated at public schools and at Georgetown University. Entered Bell Telephone service at Washington, D. C., in February, 1900, as an employee in the Counsel's office. Later was employed as Rights-of-Way Agent and Special Agent, office of the General Manager.

Appointed Philadelphia Division Manager, January 1, 1908.



GEORGE S. REINOEHL

GEORGE S. REINOEHL
Harrisburg Division Manager
Born February 7, 1878, at Lebanon, Pa.
Educated at public schools and at University of Penna.
Entered Bell Telephone service at Lebanon, Pa., in December, 1898, as a salesman. April 1, 1899, until January
1, 1907, he was Local Manager, at different times, at
Lebanon, Lancaster, Scranton and Reading.
Appointed Chief Clerk to General Manager, Harrisburg,
January 1, 1907; Chief Clerk to General Contract Agest,
Philadelphia, January 1, 1908; District Manager, West
Philadelphia and Main Line, March 1, 1909; and Pathungh
District Manager, May 1, 1910.
Appointed Harrisburg Division Manager on Nov. 1, 1912.



ALBERT H. OSTERMAN

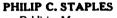
General Commercial Engineer

Born December 17, 1878, at Cincinnati, Ohio.
Educated at Washington, D. C., public schools and at
Georgetown University Law School.

December 27, 1894, as a messenger.

Appointed Chief Clerk, Contract Department, in 1899, and Contract Agent, May, 1908; Special Agent, Philadelphia, on March 1, 1909.

Appointed Cancel Communication Contract Agent, Philadelphia, on March 1, 1909. Appointed General Commercial Engineer, November 1, 1912.



Publicity Manager

Born October 24, 1882, at Revere, Mass. Educated at Harvard University.

Entered Bell Telephone service at Baltimore, Md., September 5, 1904, as a salesman in the Contract Department, and later was made a clerk. Appointed Chief Clerk to the Atlantic Coast Division Manager on March 1, 1909. Transferred, November 1, 1909, to Publicity Department as

copy-writer.
Appointed Publicity Manager, June 1, 1910.





JAMES M. REPPLIER

Atlantic Coast Division Manager Born March 18, 1875, at Philadelphia, Pa.
Educated at the Friends' School of that city.
Entered Bell Telephone service at Philadelphia, Pa., May
10, 1899, as a clerk in the office of the Supervisor of Lines.
Later he became Supervisor's Clerk, Assistant Supervisor,
District Engineer and Plant Supervisor of the Western District,
comprising West Philadelphia, Main Line and Chester District,
Appointed Chief Clerk, Trenton District, Commercial Department, on July 22, 1907; two months later was made
Trenton District Manager; and on January 1, 1910, he was
transferred to the Camden District as District Manager.
Appointed Atlantic Coast Division Manager, June 1, 1910. Born March 18, 1875, at Philadelphia, Pa.

COLDS

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee As the fall and winter approach we are very forcefully reminded of the frequency with which "colds" occur, although they are by no means confined to certain seasons of the year. It is the general belief that this affection, which involves the mucous membrane of the nasal cavity and usually the throat, is due to drafts, sudden changes in the temperature, wet feet, etc. This is not the true explanation of the origin of a cold, for it is really caused by special forms of bacteria or germs which find their way to this membrane and under certain influences excite an active inflammation of these parts. Therefore, a cold is an infectious disease. and transmissible from one person to an-

In a previous article relating to tuberculosis it was stated that a large proportion of the population of cities and closely builtup communities are carriers of the germs of this disease, but if these organisms are not too great in number, or too active, and if the resisting power of the body is good the pulmonary or lung complication may not occur and the tubercle bacilli, unable to make any headway, are destroyed and absorbed by the healthy tissue. Practically this same condition occurs in connection with a cold, although the germs which cause this affection are far more often present in the body—consequently, a cold is probably the most common ailment we have. The ordinary form of pneumonia is also due to the presence of a specific germ and is therefore an infectious disease.

This article does not admit of sufficient space to describe how satisfactorily scientific investigation has proven the value of good health in preventing the development of infection when various forms of bacteria enter the body, although a word mav very properly be said here in reference to it, for it is the purpose of this article to impress upon the reader the fact that a cold is not always a trivial affair. Serious complications may take place as the result of the extension of the inflammation to adjacent membranes, as it is not infrequently followed by pneumonia, particularly in the very young and those advanced in years and in persons whose health is much impaired. Besides, at any period of life a cold may lead to deafness, chronic catarrh and other conditions which cause continued annoyance and often render those who are thus affected unable to carry out their work successfully. Very naturally our system in various ways protects against the invasion of infectious germs. The blood supplies the most important aid in this direction, for it contains little bodies known as leukocytes, which are always on guard; they are wonderful fighters and attack these germs with great ferocity. If, from impaired nourishment or other causes the function of the leukocytes is interfered with and if the various organs of the body do not properly perform their work, we suffer in many ways—particularly in connection with infectious diseases.

The germs that cause a cold may at almost any time be found in our nose and throat, but usually require some exciting cause to render them sufficiently active to induce inflammation; this may come in the form of lowered vitality, or drafts, wet feet, sudden changes of temperature, etc. Those who are in the mountains or in regions where there is but little chance of infection do not suffer from colds, although the temperature may be very low and the exposure may last for some time.

A certain form of cold is often caused by some general infection and becomes a symptom of this disease; for instance, this occurs in measles. Every mother knows that a cold in the head—particularly, if in addition the eyes are congested, may be the forerunner of this disease.

As a cold is a germ infection, it must follow a certain course and the best we can do is to lessen its severity and prevent its extension. There is a popular belief that a cold lasts three days; there is considerable truth in this, for even when properly cared for this period usually elapses before the activity of the attack ceases.

A cold is ushered in by symptoms which are so well known that they need hardly be described. In a well marked type of this affection a feeling of malaise or depression usually precedes the more active symptoms, such as chilly feelings, sneezing and dryness of the membrane, followed by a copious discharge, pains in different parts of the body and sometimes accompanied by considerable elevation of temperature. If the attack is associated with the constitutional symptoms referred to, much will be gained in the way of saving time and avoiding unpleasant complications if the patient will remain at home and in a room which is kept at an even temperature of about 70 degrees until the more active symptoms have subsided; in this way there is also less chance of transmitting the infection to others-particularly when cleanliness is observed and the discharges are promptly destroyed. This may be greatly aided by the use of thin cheesecloth, which is first boiled, then dried and cut in small pieces and used in place of handkerchiefs and afterwards burned.

If the symptoms are aggravated the family physician should be promptly sent for; otherwise, simple home remedies may be employed; for instance, in the beginning a hot lemonade, extra warmth to the body and a cathartic at bedtime are of value, for these agents stimulate the skin, liver and intestinal tract and aid in relieving the inflamed membrane and limiting the infection. A mustard foot bath at bedtime may also be useful. The diet should be light and without meat.

What is far more important are preventive measures. These may be practically applied by observing the rules of hygiene, good food, proper exercise, cold baths, etc., for all of these protect against colds by keeping the body in good, healthy condition.

Clothing should be worn suitable for the season; this has previously been referred to. Such articles as chest protectors and mufflers should be avoided, for they weaken the skin and therefore do more harm than good. It is the care of the body rather than the selection of the clothing that offers the greatest protection.

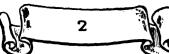
Wet feet constitute one of the most common exciting causes of a cold. Rubbers are unpopular, chiefly on account of their appearance; this is quite senseless in view of the great comfort and protection they afford in wet weather. The foot wear of today. particularly that worn by women, offers practically no protection against wet ground and pavement. Waterproof shoes for general use exist chiefly in the imagination, for the best do not keep the feet dry and are unworthy of consideration. Women are particularly susceptible to the various unpleasant conditions which may be indirectly caused by wet feet, and much suffering may be avoided if rubbers are worn during storms or when the ground is wet. Mackintoshes are also of great value in keeping the clothing dry during storms, for umbrellas at the best protect only the head and upper part of the body. If wet clothing, shoes and stockings cannot be promptly changed a cold may often be prevented if active exercise is continued until an opportunity presents itself to rub the skin briskly and put on dry garments.

It can hardly be expected that a person who has contracted a very mild cold will remain at home, particularly if it interferes with the daily work, but effort should be made to prevent further infection by avoiding undue exposure, otherwise a mild attack often becomes severe and may last indefinitely or end in some unpleasant or serious complication which might easily have been avoided if proper care was used.

VOL.1X, NO.23

SNOW, BEAUTIFUL SNOW

DEC. 1, 1913





THE PITTSBURGH STORM

JES, Mr. Stryker, we're having a snowstorm, and a real one, too. Just about all the toll lines are gone; the Pittsburgh, New Castle and Greensburg Districts seem to be affected most. reach the towns that are in distress and can't learn the extent of the damage." That was the tenor of the northwestern end of a telephone talk from Pittsburgh to Washington, D. C., where the Plant Superintendent was spending a vacation.

And the southeastern end was something like this: "A real job seems to be staring at you, but you have a good, strong, loyal, competent crowd. Go to it, and I am sure the boys will be equal to the task which is before them. Keep the crowd smiling and you'll get the answer."

It was Sunday, November 9, and an early snowstorm had swooped down on our Pittsburgh Division most disastrously. The rain of the previous night had turned to a wet, heavy snow in the early morning, and from that time until noon Monday the Weather Bureau in Pittsburgh had recorded a fall of but a bit less than fifteen inches of snow-remarkably heavy for Pittsburgh in early November.

At first it melted rapidly, but later it grew cold and the snow and water froze, coating trees, wires, everything, with its heavy ice, to which the rapidly falling snow clung with tenacity, pulling down wires, cables, poles—overhead plant of all kinds.

Power companies, street railways, telegraph—all shared the fate of the telephone lines. The wind rising to the velocity of a hurricane swept the open country, and toll lines suffered most. Where there was subscribers' "trouble," it was confined largely to drops from our poles to the premises of the subscribers.

One by one the leads gave away and by one o'clock, Sunday afternoon, Pittsburgh had circuits only to Monongahela City, McKeesport and McDonald. Toll lines in the New Castle, Greensburg and Wheeling Plant Districts were affected to about the same degree as Pittsburgh. But one Plant Supervisor escaped unscathed

Mr. Williams at Erie, who was able to send his crews to the aid of the New Castle District.

Messengers were sent from Pitts-

burgh to the headquarters of the Supervisors. W. A. Mason, G. N. Mereness and E. C. Long were the messengers. Their duty it was to reach the Supervisors, learn what damage had been wrought by the storm and what material would be required for the repairs, then to return to headquarters and report.

Three o'clock, Sunday afternoon, saw every available man out doing his best. And from that time until the damage was repaired there were some 1200 men hard at it from early morning till late at night.

Communication had been cut off. There was no way for even the Supervisors to learn the exact extent of the damage except to have their men "walk over" each line. The Pittsburgh toll line crews were scattered over the district, with instructions to ascertain the damage and report

as promptly as possible. Transportation was at a standstill. The roads were unbroken and in many places the snow was drifted to a height of twenty or twenty-five feet. Liverymen refused to allow their horses to be taken out of the stables. The men, therefore, were divided into small patrols of two or three, and a section of pole line—usually five miles long—was assigned to each gang.

Little could be accomplished on Sunday, for as rapidly as breaks were repaired the weight on the wires caused new ones to occur. The snow



THE PICTURES TELL A STORY IN THEMSELVES AND BETTER THAN WORDS, FOR THE HARDSHIPS UNDER WHICH THE MEN WORKED ARE WELL-NIGH INDESCRIBABLE."—A BREAK ON NEW CASTLE-PITTS-BURGH TOLL LEAD NEAR SHEEP HILL. FIELDMAN NEAL AND LINE FOREMAN NEWELL STANDING AMONG ICE-COVERED WIRES.

was constantly falling, and the rising wind added to the trouble. The same difficulties were encountered on Monday, but the efforts of the men were concentrated upon an attempt to establish communication of some sort with each office. By nightfall Monday, talking circuits had been established with every district office except New Castle.

Plant Supervisor Krause at New Castle arranged with the New Castle Herald to have their Morse operator come to the telephone office, and over a circuit which could not be used for talking purposes telegraphic communication was established with Pittsburgh by which both news matter and the Telephone Company's business were sent. On Tuesday morning a telephone circuit was O.K.ed.

The New Castle District perhaps felt the seriousness of the storm more than any other; but the Greensburg and Wheeling Districts were not far behind New Castle and the trouble in Pittsburgh was extremely heavy.

The Pittsburgh-Rochester lead was down in five places. The Pittsburgh-Greensburg had four breaks. River crossings were down at Groveton and Ellwood. In the whole division there were probably 500 toll poles and an equal number of exchange poles down.

Such was the job that faced Pittsburgh Plant. But the situation was met, and was met with that spirit which an emergency always makes evident in a Bell "Plant man." The hours were long; a chill was in the air; finding roads was difficult; the snow was deep,-but ever and on plugged the loyal crowd, and success eventually came.

Too much cannot be said in praise of the men who were on the job. From supervisors down along the line, every man seemed to be filled with sincere enthusiasm to give the job his best efforts. Working often in snow. drifts that almost covered them, the men stuck to the job unflinchingly, with but one supreme desire, to repair the broken-down lines and establish communication with the isolated towns. Everywhere was manifested the same eager heroism, the same loyalty to duty and forgetfulness of self.

The Supervisors had the work well in hand, and to them is due credit for the comprehensive plans and to the men for their ready execution of the task assigned them.

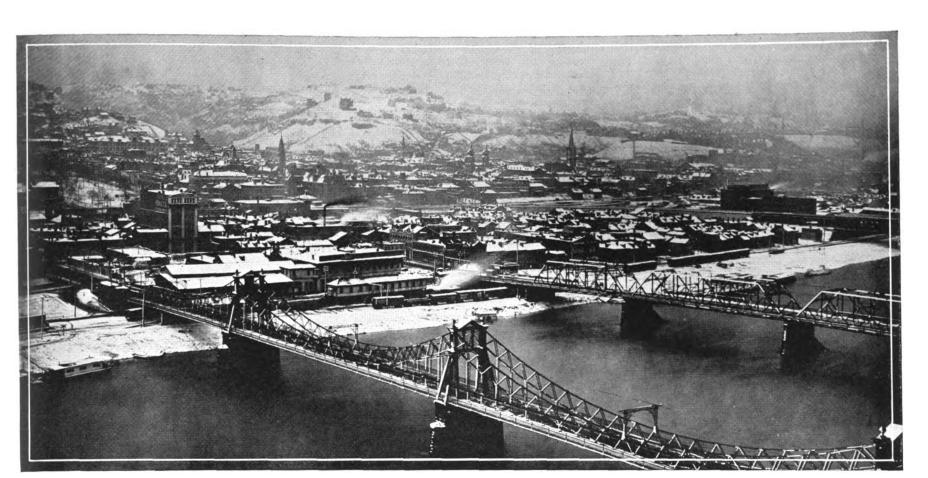
The pictures tell a story in themselves and better than words, for the hardships under which the men worked are well-nigh indescribable. Five teams set out from Uniontown, Monday, and not a single one was able to reach its destination. In most of the other places horses could not be obtained and practically everywhere the work had to be accomplished by tramping it through snowdrifts.

On some of the lines the breaks were relatively small but numerous. One Uniontown troubleman found 16 breaks in three miles. In other places the breaks were wide ones. At Wheatland Junction, on the New Castle-Sharon line, there was a break of 32 poles.

The railroad companies, appreciating the disaster which had befallen us, were helpful beyond expectation.

More was asked of the Pittsburgh and Lake Ene than any other, and their ready acceding to our requests was most gratifying. Likewise the express companies gave every possible attention to our many "rush" shipments. On trains that carried no express cars arrangements were made to ship our emergency cable, twist wire and other material as baggage. The river crossing at Hoyt-dale, on the New Castle line, was the scene of a bad break. This Hoytdale Junction river-crossing trouble was ascertained through Mr. Davis a troubleman employed at New Castle who happened to be in Ellwood City visiting over Sunday. New Castle ordered him to cover the lines from Ellwood City to the river, and on his arrival at the river he found two of the No. 8 steel wires down. While standing there the "H" type con-

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THE PLANT MAN'S OUTLOOK FROM THE OFFICES IN THE FULTON BUILDING ON THAT MEMORABLE NOVEMBER MORN.

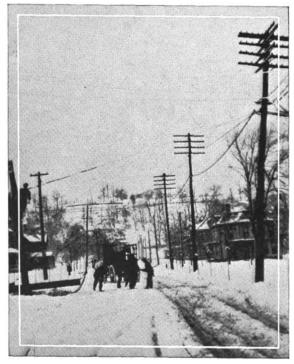
struction on the east bank of the river broke down over the tracks of the Pennsylvania Railroad. Davis heard a train coming and was able to flag the train and had the trainman hitch the wire to the engine and drag the débris off the tracks. This bit of headwork saved a great deal of labor and perhaps a railroad wreck.

The Hoytdale Junction job was a difficult one. The span of the river crossing is some 1200 feet in length. On Monday repairs were effected by drawing piles in the river and placing lead-covered cable on top of them. When the snow melted several days later and the river rose, the emergency job was washed away. On Thursday messenger wire was strung overhead and cable hung to it. Mention of this job would be incomplete without the names of several of the men who were prominent in its accomplishment. An accident occurred to Foreman Pfaff when, in unloading the cable, the reel "got away" and tore the ligaments in the calf of his leg. A train was stopped and arrangements made to take him home, but he refused, and insisted upon staying on the job until late at night when the job was finished, hobbling about with broomsticks for crutches.

On the same job, J. E. Stroble and I. O. Nevel rowed a boat across with rope. Stroble rowed the boat, while R. N. Nevel cut loose a tree from the messenger wire. D. D. Cranmer rode the messenger wire to attach clamps. R. G. McCoye rode the messenger to clear off the leaves after it had first been drawn up, and J. E. Stroble rode the wire and clipped the cable.

On the Greensburg-Pittsburgh line seven poles in the borough of Manor went down, carrying 70 wires and one 91-pair duplex cable. Emergency cable was ordered by sending a messenger to Pittsburgh. The cable arrived at 6:30 P.M.. and so anxious were the men to restore the line to service that they worked by the light of automobile headlamps until midnight to repair the break. The cable was placed on fence-posts—on anything that was available—for the all-important aim was to restore toll service.

A gang working on the Butler-Pittsburgh line had a break three miles from Bakerstown for which 30,000 feet of twist wire were necessary.



"FOREMAN PFAFF AND HIS GANG ARRIVED ABOUT TEN MINUTES AFTER THE POLE HAD BROKEN AND PLACED GUYS TO HOLD THE LINE. HAD A FALL OCCURRED, ALL COMMUNICATION WITH BEAVER WOULD HAVE BEEN INTERRUPTED FOR AT LEAST A

The wire arrived in Bakerstown Monday morning, but no liveryman would haul it to the scene of the break. The men put it on their backs, plodded through the deep, wet snow and repaired the line.

Many of the men were continually at work from Sunday noon until Wednesday night. Rubber coats, gloves and boots were provided and every possible effort was made to protect the men. The job at best was a difficult one, attended with hardships known only to those who really "went through the mill."

Fairmont and that section of West Virginia were completely cut off from the world outside. But by noon Monday sufficient circuits had been repaired to permit news circuits to be put up, the B. & O. Railroad to dispatch its trains by Bell lines and the traction company to do likewise, and in addition two hundred toll messages were completed in Fairmont on Monday.

Of the sixty circuits going out from our Wheeling office, but three were working at noon Sunday. The same day communication was established to the southern Ohio River towns. The Wheeling District was singularly fortunate in that only six poles were broken off in the entire district. Service to Pittsburgh was opened at 5 o'clock Monday afternoon, but within a few hours it went out again and was finally repaired

Tuesday afternoon.

The Wheeling District's most serious difficulties were between East Liverpool and Steubenville, and Steubenville and Wheeling. M. P. Hartman, combination man at Wheeling, repaired three breaks between Wheeling and Wellsburg and nine between Wheeling and Steubenville, the latter lead carrying 40 wires.

Local trouble in many towns was due largely to the poor condition of the opposition telephone plant, which crashed into our own, dragging it down into difficult tangles. Bruce Kelley, Plant

Digitized by GOOGLE

Dec. 1

Wire Chief at Grafton, W. Va., and Line Order Foreman E. J. Guillarmod at Wellsville did notable work in untangling "messes" of this sort. Plant Wire Chiefs Fletcher at Fairmont and Gahagen at Morgantown did good work in restoring toll service in their mountainous territory,

as did M. F. Johnson at Clarksburg in restoring the leads to Fairmont and Grafton. Difficulties in the Monongahela Valley were cleared by Monday night. At Uniontown there were no big breaks and the trouble was scattered. The Pittsburgh-Point Marion lead contained a

seven-pole break at Rice's Landing. The Rochester-Wellsville lead went down for seventeen sections, just outside the town of Beaver. Three reels of emergency cable and 26,000 feet of "twist" were used in the repair of this break. The Rochester-Pittsburgh line, carrying 42 wires, went down over the P. & L. E. Railroad tracks for four sections. A structural iron guy pole in Beaver broke off one foot from the ground. The lead, carrying 40 wires, two 300pair cables and two 50-pair cables, was saved from falling only due to the meritorious work of Foreman Pfaff and his gang. They having

arrived about ten minutes after the pole had broken, placed sufficient guys to hold the line. Had a fall occurred, all communication with Beaver would have been interrupted for at least a week.

At one break in the New Castle-Wampum line, splicers worked all Sunday night butting bridle wires on both ends of a lead-covered cable. But before the job was finished other breaks were found.

The tangles in many towns, with fallen light and power lines, rendered the work dangerous, and it was only through extreme cautioning by the Supervisors and careful work of the men that accidents were avoided.

Primarily this is a Plant story and a Plant job, but so serious was it to the operating and with so many difficulties were the Traffic forces beset that an account of the storm damage would be incomplete without mention of the untiring efforts and splendid work of the switchboard forces.

With the circuits greatly lessened in numbers an overload was handled in almost every office. A particularly good piece of work was done by the Pittsburgh toll office, which handled a surprisingly large amount of business in comparison with the circuits in use.

Permanent repairs have been made and the plant is almost uniformly in its original good order. We may now look at the job and feel content that it was

done well and speedily. We may congratulate ourselves on the personnel of our organization, that once again emergency has come and has been met—met in a way that makes us proud of every man who was on the job; and that's just about

HOW THE ROAD DOWN THE ISLAND LOOKED.

EFT TO RIGHT: WIRE CHIEF A. C. SWAIN, CONSTRUCTION FOREMAN GEORGE McCORD, SUPERVISOR C. S. KRUUSE, FIELDMAN H. J. NEAL, AND ASSISTANT WIRE CHIEF J. T. HARRIS.

every Pittsburgh Plant man. The public, through the press, has recognized our work, and recognized it with appreciation, and, as has been said, the public is the "Big Boss."

Current Events

"Watt-hour you doing there?" asked the boss.

"Eatin' currents," replied the apprentice shamefacedly. you'd catch me at it."

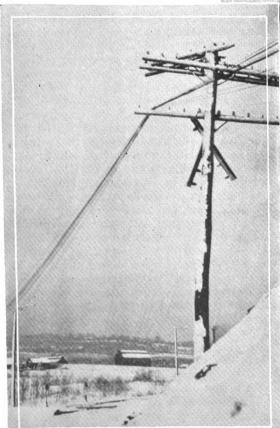
"Wire you insulate this morning, anyway?" demanded the boy's boss.

"Leyden bed."

"Wouldn't that jar you! Can't your relayshunts get you up mornings?"
"Amperently not."

"Fuse going to do that every day you can take your hat and go ohm." replied the boss, and the circuit was broken right there.





EMERGENCY CABLE AND TWISTED PAIR STRUNG OVER TOLL LINE BREAK AT WEST PITTSBURGH-NEW CASTLE EXCHANGE—TWO-POLE BREAK.



FIRST POLE ON NORTH SIDE OF HOLLOW—AROUND SHEEP HILL—NEW CASTLE-PITTSBURGH LEAD.



"BUT LATER IT GREW COLD AND THE SNOW AND WATER FROZE, COATING TREES, WIRES, EVERY THING, WITH ITS HEAVY ICE."











Pittsburgh Division Z. Z. HUGUS, Division Correspondent

Erie District

A telephone society will be organized by the employees of the Commercial, Plant and Traffic Departments at Erie, Pa., on Tuesday evening, November 18.

The plant forces at Bradford and Warren, Pa., have organized study classes: the one at Bradford to meet each Friday evening, and the one at Warren to meet the second and fourth Monday of each month. The object of these organizations is to make a study of the handbooks and specifications covering the work handled by the Plant men and also to take up First Aid work, and any other questions that may have a bearing on the efficiency of the Plant men.

The Warren Local Manager also received the following letter from a prominent lumber firm in Warren:

"Some little time ago we wrote you calling attention to the poor service which we had on the 132R This received prompt response from your local men, and they seem to have gone over the line very carefully and since that time the service has been very good. We are writing this to let you know that we were taken care of and appreciate the prompt service rendered. We like and must have good service and are willing to show our appreciation when we get it.'

SCHAUBLE.

Johnstown District

On October 25 the offices of the District Manager, Local Manager

and Plant Chief were combined at Johnstown in new quarters fitted up at 628 Main Street. With the forces centrally located it is thought that our work will be handled in a more satisfactory manner than when the offices were, as a local policeman recently told the Vice-President and General Manager, "all over town."

The following letter received from one of our Greensburg subscribers indicates that the service rendered by Miss Susan E. Simfrock is appreciated:

"In these days when there is so much complaint of

"In these days when there is so much complaint of the action of employees of public service corporations it is most refreshing to find one who is exceptionally accommodating and courteous.

"On Wednesday evening, November 5, I had occasion to call a party in Rochester, Pa. The information I had as to the location of this party was extremely vague, and I hardly expected satisfactory results. However, the Long Distance Operator was so zealous in her work and so anxious to secure results that she actually work and so anxious to secure results that she actually arranged for me to talk with a party in New Brunswick, who transmitted the message to the party in Rochester, whom I desired to receive it. This was so pleasing to me, and the results were so exceptionally good, that I feel it is only due to this young lady that I write you expressing my appreciation of her work, her courte-

"LITTLE" ELMER BROWN (WEIGHS 820 POUNDS) AND HIS GANG AT ONE OF THE TOLL BREAKS.

ous treatment and ability to secure results in the inter-

est of her employer.

"Hoping that operator No. Thirty-one may long continue as an employee of your Company, I remain, "Yours very truly,

H. E. Marker."

A private branch exchange consisting of two trunk lines and fifteen stations was recently installed for the Department of Health of Pennsylvania at its new Tuberculosis Sanitarium located at Cresson, Pa. The stations are all located in the main building and surrounding cottages, the latter being occupied by the medical staff of the sanitarium.

The Johnstown office received a report the other day from a subscriber that the bell did not ring. The repairman sent out on the case reported that the subscriber, thinking that the telephone would look better polished, had varnished not only the telephone but the gongs as well, and the clapper ball had stuck fast to the gong when the varnish dried.

The Ebensburg Manager received another letter in praise of "the model courtesy of the Central District Telephone employees."

> Recently the following peculiar toll calls were placed with the Indiana operators:

> "Can you give me a yellow-haired girl that works in a restaurant at Blairsville?"

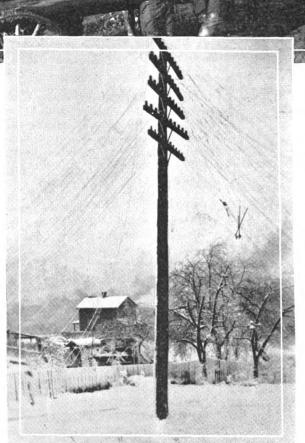
"I wonder if you can get me a widower who had a grocery store at East Brady?"

In the first instance the party was located in three minutes and in the second in five minutes.

WARRICK.



ROCHESTER-WELLSVILLE LEAD. EMERGENCY CABLE ON GROUND.



NEW CASTLE-PITTSBURGH TOLL LEAD. ONE POLE LEFT STANDING AT FOOT OF SHEEP HILL.



REPAIRING LINE ON MORUVIN STREET, SOUTH OF GARDNER AVENUE. IT WAS SNOWING HARD WHEN PHOTOGRAPH WAS TAKEN. Digitized by GOOGLE

Dec.1

New Castle District

A few weeks ago the New Castle Board of Trade held a banquet at which Governor Tener was to be the guest of honor. A local florist, who was given charge of the floral decorations for the evening, wished to have a large photograph of the Governor to carry out his style of decorating. A thorough search was made throughout the city, with no results. As this was the day of the banquet, his time was very short, so he called on the Chief Operator at New Castle for assistance. The latter, after making several unsuccessful attempts to get one from Pittsburgh photographers, finally located one in the possession of the Pittsburgh Post. Connections were immediately established with the local florist and arrangements made, and the picture was in New Castle on the next train.

Members of the Business Men's Association of Tarentum, Pa., recently received notices as follows:

"Regular meeting of the Business Men's Association Monday evening, 8 P. M.
"My 'phone number is 218. 'Get the habit' of calling me up; it means dollars to you.

Edward O. Spotts,
Secretary."

To encourage high school students at New Kensington to use the telephone as much as possible, Professor Geo. S. Dannals is placing one of our blotters on each student's desk. Professor Dannals takes his class through the New Kensington exchange regularly every year as a part of their course. HARPER.



J. T. COUGHLIN'S CREW WORKING IN ROCHESTER, WHERE STRUCTURAL IRON GUY BROKE OFF AT CORNER. CONSTRUCTION FOREMAN GEORGE McCORD, WIRE CHIEF C. H. HOOD, AND LINE FOREMAN H. E. PFAFF IN CENTER OF GROUP.

Pittsburgh District

The following note was received from a Shadyside subscriber regarding the work of Installer G. W. Johnston:

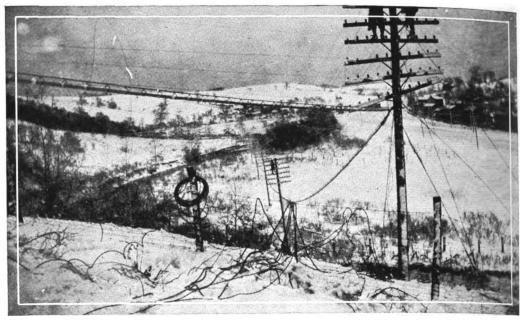
The Central District Tel. Co.:

I should like to state that the work of installing desk telephones in my house, replacing one old instrument, was done in a capable and intelligent manner by the workman sent out. He has judgment and is very accommodating. I am pleased to say this word in commendation of his work.

Mrs. Wm. J. Moorhead.

Uniontown District

At Clarksburg the Western Union Telegraph Company found it an impossibility to restore their service and applied to our Plant Department at 3:45 P. M. on the 10th for Cincinnati circuit, which was furnished and O.K.ed at 4:20 P.M. For several days this was the only telegraph circuit working out of Clarksburg.



"THE TANGLES. WITH FALLEN LIGHT AND POWER LINES, RENDERED THE WORK DANGEROUS, AND IT WAS ONLY THROUGH EXTREME CAUTIONING BY THE SUPERVISORS AND CAREFUL WORK OF THE MEN THAT ACCIDENTS WERE AVOIDED."

A Traffic agreement entered into with the Eastern Ohio Telephone Company opens up a territory formerly without Bell service. This connection establishes service with approximately one thousand subscribers on the East Rochester, Homeworth, Hanoverton and Minerva exchanges.

The quarterly conference of the Chief Operators and their assistants of the Fairmont Sub-

District was held at Fairmont recently. The meeting was held in the office of the local exchange. Special attention was paid to new rules adopted, plans made for the betterment of the service, and the meeting throughout was an enthusiastic one. The visitors, toan enthusiastic one. The visitors, to-gether with the local Chiefs, were entertained at lunch, the hosts of the occasion being Assistant Traffic Chief W. V. Briceland and Local Manager F. K. Mansfield.

During the month of September this district gained 23 stations and \$476 revenue, and during the month of October 33 stations and \$636 revenue, from suggestion slips received from employees of the Plant and Traffic Departments.

At Clarksburg, W. Va., a telephone reported out of order was found to have a bullet in the bell coils. MISS HEPPLEWHITE.

Wheeling District

S. E. Brown, combination man, Altenheim, lost his wallet while up on a pole. Two weeks later he found it under a tree, with papers and money intact. It had fallen into the tree, escaping his search, and later fell to the ground.

Awakened by smoke and almost unable to breathe, Mrs. R. M. Stanford used her telephone as a distress signal. Unable to understand the message the night operator knew that something was wrong and sent aid to the house. When removed, Mrs. Stan-

ford was unconscious. The one thing better than company in the house was her telephone for a friend would perhaps have been in like condition, while the little thing of cord and metal could only have been overcome by the flames themselves. MISS DIEHI...

Operators Worked Hard During Storm

"It is an ill wind that blows nobody good" is a maxim which is applicable to pretty nearly every condition and walk of life. For instance, the snow and the attendant pandemonium of Sunday served to uncover some inspiring examples of devotion to duty and unsefish and untiring efforts to please an excited and bewildered public on the part of the brave young ladies at the switchboards in the local telephone office.

These loyal girls cannot be too highly praised for the manner in which they handled a crippled wire service, and it is a pleasure to state that the admirable conduct of the telephone girls is appreciated generally by those who found it necessary to use telephones both during the storm and its uncertain aftermath.—Uniontown Daily Record.



EMERGENCY CABLE AND TWISTED PAIR STRUNG OVER TOLL LINE BREAK AT WEST PITTSBURGH-NEW CASTLE EXCHANGE TWENTY-ONE-POLE BREAK.



7

THE TELEPHONE NEWS

Published the first and fifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania The Central District Telephone Company The Delaware & Atlantic Telegraph & Telephone Co. The Diamond State Telephone Company

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SUBSCRIPTION PRICE:
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To employees of OTHER BELL COMPANIES,
payable in advance

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Vol. IX DECEMBER 1, 1913 No. 23



ID you ever have 300 visitors in one day?

On another page, Miss I. M. Keenan, our Germantown Chief Operator, tells of her experience in receiving 1455 guests in five days at the Germantown central office.

No, we aren't setting this up as the best record ever made, because we aren't sure that it is,—but we do know that this was a mighty big job, well done, and reflecting great credit on every last employee who helped make these "receptions" so successful

Stop for a moment and seriously consider this undertaking. Nearly fifteen hundred of our patrons came, saw, and understood; and we, the Company,—is it possible even to estimate the great benefit which we enjoyed by taking this unusual number of people into our confidence, so to speak? Doesn't it open up a real vista of possibility to us, a vista of men and women coming into the workshop where our service is performed and where these same men and women see—only in part, perhaps—what they are paying their money for?

Just one more word, and that a suggestion: let's appoint ourselves, each one of us, an invitation committee to bring at least one of our subscribers to our operating rooms between now and the first of the new year,—that they may see for themselves something of the serious, dignified work going on at the switchboards, and come to understand, first, the highly specialized and intricate character of the business of switching and answering their calls and, second, something of the tremendously earnest effort that is being made by our operators in the performance of a continually more efficient and effective work.

What do you say?

Our Supplement

Telephone," by Mr. Thomas A. Watson, is not only of great interest, but it contains what is probably the most authentic information with reference to the invention of the telephone that has ever been published. We simply say, read it and judge for yourself.

Concerning Ideas

NITIATIVE and perseverance are perhaps the two greatest qualifications for success that anyone can have—except character. Of these two, initiative is by far the rarer.

You ask what initiative is. It is that quality or ability which enables a man or woman to see things before others discover them and to bring out the energy to put his or her thoughts about them into effect.

Without initiative we may be splendid, smoothly working pieces of human machinery and well able to carry out other folks' ideas. But without initiative we never originate anything; and it is the originators who succeed best, and who deserve to.

Maybe you say "Why?" Well, because good, practicable ideas are scarcer than anything else in this wide world.

Initiative is what makes the giants of science, business and finance; and it is the reason that we have to-day the telephone and telegraph business.

But we mustn't forget that it is also at the bottom of thousands and thousands of less known but not less real successes. You can see them all about you; there are hundreds of men and women in our Companies to-day who have had ideas and who have worked them out.

So, why not start something? "There's a reason."

Special Delivery

We can not imagine unless it be involuntarily witnessing two Sunday sun risings. As chief witness, we will call upon the highest telephone representative of a certain big department in a certain big city, who has recently experienced this unpleasant sensation.

Too bad, you say, that the time of those holding responsible positions is never their own and that they must be frequently disturbed with important matters that are never consistent in their arising—"Ay, there's the rub!"

On both occasions the early morning intruder was a special delivery boy carrying periodical reports and other equally excit-

ing matter. While these had been sent later than usual from the district offices, in either instance the regular delivery would have brought the mail to the office desk in ample time.

Let you and me remember that speed, being one of the essentials of successful business, should, like all other good things, not be used divorced from judgment. In other words, lick twice before using a special delivery stamp.

Uninvited

whisper it—my name's coöperation; I'm hackneyed, they tell me, and on the black list because I've been talked to death.

"But maybe, if I slip in the back way, the editor won't see me coming and I'll be able to get on the editorial page—so here goes—for I really have a message to-day.

"Everyone knows that these Commercial Department men come in direct contact with the public, but how about the rest of us?

"If an installer, a troubleman, or any one of us hears a complaint, should he say, 'That's not my business; go to so-and-so'? No, let him, as a representative of our organization, respectfully take the complaint as though he were the one to whom it should be given, and when he gets back to the office, deliver it to the proper person.

"Suppose a prospect approaches a member of the loop gang and says, 'How much would a telephone cost me in my house?' He should reply, 'Let me have your name and address, and a representative quoting rates will call upon you.' rather than, 'I don't know; you've got to go to the office for that.'

"If a salesman is approached by an irate citizen and told that a Bell Telephone pole is obstructing the entrance of his newly built garage, he will help the Company so much more by quietly taking the name and address of the man, and promising some reasonable settlement (which the Company is always willing to make) than to say, 'Don't go for me about that; it's up to the right-of-way man in the Plant Department.'

"Finally, let us remember that we are not alone working for Mr. Brown of the Commercial Department, Mr. Smith of the Plant Department, or Mr. Jones of the Traffic Department, but for The Bell Telephone Company.

"Here comes that editor now—I've got to run—so good-bye and don't forget my name,—it is good, old-fashioned coöperation."





Dec. 1

By P. C. Kramer, Division Auditor of Receipts

■HE apparently unimportant detail of the imprint of a name or address on a patron's bill often influences a patron's opinion regarding the business methods of a firm or corporation. A clear-cut, carefully arranged imprint silently but surely creates an impression that inspires confidence that the bill has been carefully prepared. Therefore the addressing of bills is a subject which receives much consideration especially among public service corporations, where a large number of bills having, in some cases, one or more stubs must be addressed each month. As addressing equipment is costly and carries a high maintenance charge due to constant additions, withdrawals and changes in patrons' names and addresses, consideration must be given not only to the appearance of the imprint, but also to the efficient and economical features of any addressing system.

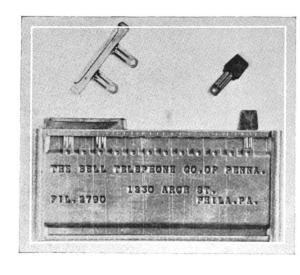
To meet the demands for greater efficiency and economy in addressing work there have been placed upon the market within the past year automatic feed addressing machines which are so constructed that maximum efficiency with minimum labor is obtained. Approximately two hundred address plates are placed in a magazine at one time and about two thousand bills are placed in a container from which one bill at a time is carried to the printing point, where it is addressed, then carried clear of the machine and stacked, ready for removal at the convenience of the operator. If the operator fails to keep the machine supplied with address plates or bills, it automatically comes to a full stop immediately after the last address plate or bill is used. With these precautions very little attention

to the mechanical operation of the machine is required. The operator's attention can therefore be almost entirely devoted to the detail of the addressing work in hand.

Recently the Philadelphia Revenue Accounting Center, after an exhaustive study of addressing systems, installed the One-

Our New Addressing Equipment Piece Metal Plate Addressograph System, which produces a clear-cut impression and can be operated on a highly efficient and economical basis when used in conjunction with the automatic feed machine.

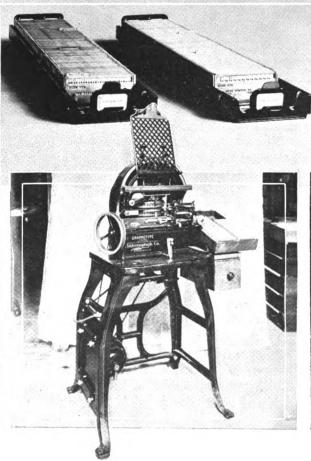
Some of the features of the addressograph equipment are as follows:



One-Piece Metal Address Plate

The One-Piece Metal Address Plates are composed of soft metal and formed, as the name would indicate, in one piece having four strongly reinforced double-seamed edges, which make the plates very durable. The plates are 1-3/4 x 4 inches in size and have a capacity of five lines. The name, address and telephone number shown on the line order is embossed on the plate by means of the graphotype (described later) almost

Address Plate Tray



Automatic Feed Addressing Graphotype or Embossing Machine Machine

as quickly as the same information could be written with a typewriter.

The metal of which the plate is composed permits of "writing over" several times by blanking out the name, address and telephone number already formed on the plate, and embossing the new information in their place; also if the wrong letter is accidentally formed on the plate, it can be blanked out and the correct letter written over it.

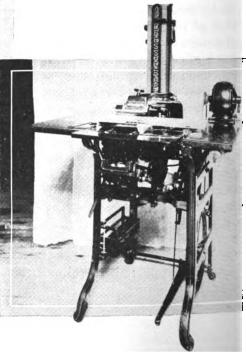
In a business such as ours where many changes in names, addresses and telephone numbers are constantly occurring, the blanking out of a part of a name or address and embossing the new information on the same plate results in a saving of not only labor but also of material, as it is not necessary to prepare an entirely new stencil in every case.

The address plates are so constructed that index tabs, or signals, can be quickly attached or removed. This is of advantage in indexing where a tray of address plates contains more than one exchange, and also in the case of a large exchange where numerical subdivision by hundreds is desirable, as such an arrangement enables the operator to locate more quickly any particular plate desired.

Graphotype or Embossing Machine

The Graphotype or Embossing Machine is used in the preparation of the address plates. The embossing of the type on the metal plates is accomplished by means of punches and dies for all characters and figures which are arranged in a turret, controlled by a wooden wheel upon which the operator has her left hand. Turning this wheel revolves the turret so that, by means of an indicator and an indicator bar, the punches and dies for the letters and figures to be embossed on the plate can quickly be brought, one at a time, to the stamping point. When the

indicator points to a desired letter on the indicator bar, the operating handle, the small lever which extends upward through the forward portion of the table of the machine, is pressed forward, which movement trips the punch and die and embosses a letter on the plate. The automatic return movement of the operating handle causes the carriage. which holds the plate between the punches

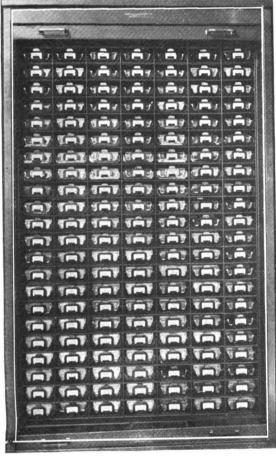


Hand-Feed Addressing Machine

Digitized by GOGIE



and dies at the embossing point, to move one letter space to the right, as in the action of a typewriter carriage. If the wrong character is embossed on a plate, the carriage is moved back one letter space and the correction made by "writing over," that is, embossing the cor-



STEEL FILING CABINET.

rect character over the incorrect one formed on the plate. A spacing lever, attached to the upper portion of the operating handle, is used for spacing between the words.

Automatic Feed Addressing Machine

The illustration shows the Automatic Feed Addressing Machine as it appears while the bills are being addressed. That it may be better understood a description of its operation is necessary. We will therefore follow a bill from the time it is placed in the machine. The bills to be addressed are stacked lengthwise in a container. A single bill is separated from the stacked bills by means of a blower and is picked up by a suction roller and placed on revolving belts, which carry it over to the point at which the imprint is made, the address plate having reached this point by means of a mechanical arrangement which forces it from the address-plate magazine to the printing point, where the address plate is held until the impression is made on the bill, bill stub and office stub. This is accomplished as the bill is carried along on the revolving belts, the bill being stopped at a certain designated point by means of a metal finger which holds the bill until the imprint is made, after which the finger is released, thereby allowing the bill to be carried along until stopped by the next finger and another impression obtained. This operation is continued until the required number of impressions is obtained, when the plate is automatically forced back to a point where each tray of plates is accumulated, removed by the operator, and returned to file in readiness for the next month's printing. After the final impression is made on the bill, it is carried from the machine by means

of a revolving belt and stacked until removed by the operator, a finished product of the Addressing Division. This machine is operated at the rate of 132 impressions per minute. As our bills require three impressions, owing to the two stubs attached, this is equivalent to forty-four addressed bills per minute. One operator can therefore address our bills in ten days, whereas formerly two operators were required for approximately fifteen days.

Hand-Feed Addressing Machine

The illustration shows a Hand-Feed Addressing Machine, for addressing initial bills for new connections and final bills on disconnected accounts. This relieves the bookkeeper of writing the name and address on all initial and final bills. It is also used in recording the subscriber's name and address on ledger folios and for emergency purposes in the event of a temporary breakdown of the automatic feed machine.

Steel Filing Cabinet

The illustrations show a tray in which approximately 200 address plates are filed. These trays fit into pigeon-holes in steel cabinets, each cabinet being designed to hold 154 trays, or approximately 31,000 address plates. The cabinets are equipped with steel roller curtains, which, when closed, make the cabinets practically dust-proof and in addition afford a certain amount of fire protection.

The addressing equipment in the Philadelphia Revenue Accounting Division comprises:

- 1 Motor-driven automatic feed addressing machine,
- 2 Motor-driven graphotypes,
- 1 Motor-driven hand-feed addressing machine,
- 5 154-drawer steel cabinets,

770 Steel trays,

145,000 Address plates.

The installation of the above equipment, including the embossing and checking of 145,000 address plates with the ledger records, was accomplished in forty-four working days, which, we are informed, is the quickest time that an installation of such size and style of equipment has ever been accomplished.

An Interview with Mr. Peirsol about His Vacation



"Yes indeed, Bermuda is the place to rest," Mr. Peirsol, our Secretary and Treasurer, tells us. "I spent three weeks there this fall, and had a wonderful time.

"You know Mark Twain once said: 'To go to Bermuda is going through hell to get a glimpse of Paradise,' and he was about right.' "After a rough trip

down, Mrs. Peirsol and I had a splendid time. I had some fishing, cricket and tennis, and my fishing experiences beat Mr. Crosman's stories all to pieces. It's no secret—I caught only one fish—but I've got some great stories, just the same."

Assumption vs. Knowledge

By W. H. Swain, Commercial Department

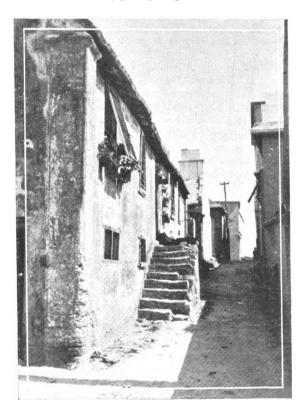
Some days ago a subscriber called at the main office and interviewed a clerk, making general complaint of traffic and without specializing found fault with nearly everything appertaining to his telephone service. The clerk thought him an excellent subject for a visit through one of our central offices and the subscriber was presented to me. I accompanied him to the Eleventh and Filbert Streets office and the Filbert switchboard. I believe he had his first ray of "inner light" at this time as to the intelligence of traffic employees.

The subscriber asked questions without number in a desire for knowledge as to the drilling and schooling of the operating force. We then furnished him with a head set and persuaded him to take first an "A" and then a "B" position. As we were leaving the building he said, "Had anyone told me The Bell Telephone Company employed in their Traffic Department girls with such intelligence as I have just met I could not have believed it. I am ashamed of myself and wish to apologize for the frequency with which I have criticised and found fault with the employees, and to show my good faith I desire to change my service." Thereupon he signed a superseding contract for direct line residence service.

This is just one case of many where a subscriber's visit to a busy central office has resulted in an exchange of assumption for knowledge.

London Telephone Service

With a view to general improvement in methods of telephoning in London, the Council of the Chamber of Commerce will take up with the Postmaster-General practically the whole subject of the present service lately taken over by the Post Office Department.



MR. PEIRSOL TOOK THIS PHOTOGRAPH IN BERMUDA; THERE ARE TELEPHONE POLES EVEN THERE.

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President Wilson, according to Senator O'Gorman, will address the banquet of the Rochester (N. Y.) Chamber of Commerce, on December 10, over the telephone.

Never allow the stock of enthusiasm to run low.

The Russian Government maintains ninetynine telephone lines, the length of which is 5200 miles; the total miles of line represented in the empire being 26,758.

Business is broadened and dignified when it is based on service.

A switchboard that may be enclosed in a trunk is being tried out by the United States Signal When in use it rests on four legs that may be raised or lowered similarly to the legs of a camera tripod.

The successful man has more than a speaking acquaintance with hard work.

Vocal sounds, but not actual words, were transmitted by wireless telephony across the Atlantic Ocean from Clifden, Ireland, to Glace Bay, Nova Scotia, according to a statement made on November 18 by Wm. Marconi. The inventor of wireless telegraphy declared that, therefore, no conversation was held in the recent experiments made by him.

Do not worry about to-morrow and the day after, for this day is yours to make the most of.

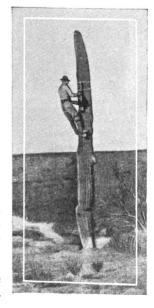
The Society for Electrical Development is raising \$200,000 by subscriptions, this fund to be used for these purposes: a nation-wide campaign of local newspaper advertising; the publication of non-technical articles on electricity; the opening of new avenues of electrical trades; and the organization of a committee to settle disputes between various electrical companies.

Unless a man has a clear understanding of how to proceed his tendency is to stand still. Investigate!

On some telephone lines in Arizona the giant cacti are used for poles. Our illustration shows a lineman climbing a 30foot cactus.

A spirit of joy and con-tentment will keep you young and your work attractive.

Col. W. C. Hayes, of the Second Regiment. Massachusetts Militia, with head-quarters at Springfield in that state, recently made a test of the period of time necessary to mobilize his regiment. At a given time the word



went out by telephone, supplemented by fire bells and whistles, through western Massachusetts. The last of the twelve companies marched up to the headquarters in Springfield just 3 hours and 58

minutes after the telephone alarm had been sent This practice mobilization was one of the first to be held by the National Guard in any state, and was considered an entirely satisfactory drill in that 81 per cent. of the total enrollment answered roll-call.

Make no quibble of it—the man who advances in any line of endeavor is the man who observes.—W. F. O'Donnell.



This reproduction shows the Japanese translation of "Rules for Resuscitation from Electric Shock" that Current News states is now being used in Japan.

The man with nothing to do and the whole day to do it is the one who misses the train.

The trans-Alpine telephone from Berlin to Rome, via Berne and Milan, is approaching com-This international line, which passes through the Simplon tunnel, is the longest on the continent as a "through" line between capitals. In several sections this telephone line passes over Swiss mountains, and precautions have been taken to prevent avalanches sweeping it away in winter.

Ten Minutes of Telephone Logic Overheard by the Observer

OU can improve your telephone service 50 per cent. You yourself and your employees are the obstacles in the way of your receiving pretty close to 100 per cent. service, for you can do most or the improving yourself."

This rather startling statement, overheard by the Observer in a down-town mercantile house, was made by a telephone man-one of those fellows who has added to his pound of knowledge a pound of conviction and still another pound of the helpful spirit which spells real public service. "I don't want you to misunderstand me," he continued. "We do not claim to be infallible. The service which we render, like everything else which is operated by human beings, is by no means perfect. But what I want you to comprehend is that we, the telephone people, cannot provide the best quality of telephone service without your aid.

"Now, don't for one minute think I'm impudent or 'nosey'; I'm only very much in earnest, and I think you'll be really glad to get my point of view. When I came into your office, one of your telephones was ringing a tattoo which one would have thought could be heard down on Main Street. The employee on whose desk it was located was deeply engrossed in some papers, -so deeply engrossed that the sound of the beil, although it would have given 'Big Ben' a rub, failed to get a rise out of him for some time,—

telephone and yelled 'Hello' in a tone of voice that proved he was a 'fan' and the gruffness of which sounded as if the Giants were winning. Then came a 'yes' grudgingly and quite as harshly. Again, 'Yes, I said, who are you?' as much as to say, 'How dare you call and waste my time?' But the next instant there was a lightning change of voice and tone: 'Oh yes, Mr. Boss, what can I do for you?"

"Now, what I have told you indicates three things: First, that your customers when they call must wait for an answer. Sixty seconds seem like sixty minutes, waiting at the telephone. You—yes, you—can improve your telephone service vastly by answering promptly. Am I not

right?
"Second, you haven't discarded the old-fashioned 'hello' in your establishment. It's rather ridiculous if you listen to it yourself. One man says 'Hello,' the other fellow answers 'Hello and then there is another round of 'hellos' before

they get down to business.

"And third, why not answer with your firm name and the department, as: 'Bright and Company, Shipping Department'? When we telephone, I can't see you and you can't see me, so I introduce myself first, and if I'm in a good humor I say 'Good morning,' too.

"One word about good humor. That's one of the biggest factors toward better service that I know of. Even if you've been nursing an armorplate grouch, put a smile in your voice when you The other fellow has nothing but telephone. your voice to go by, and you can convey that grouch to him by telephone better than in any other way. And, you know, grouchiness is contagious; if you both get it—oh, well, what's the use?—you'll lose time and perhaps a customer, and none of us can afford to do that.

"One of the German comic papers had a picture not long ago of a man with his nose stuck into the telephone mouthpiece. Underneath was the caption, 'Can't you hear me?' There is such a strong element of truth in this picture that every telephone man who looked at it first smiled and then looked serious, for a great many people are addicted to the habit of not talking into the transmitter. One would think that there were dictaphones in all sections of the room to gather the sound-waves, for some people talk at their feet, or out of the window, or into a cigar, or 'most any place except the telephone. To get good transmission one must talk into the transmitter. That is what the transmitter is there for. You don't hold the receiver over your eye when you wish to hear, now, do you?

"Another good thing is to have your employees take care that the telephone is firmly placed on the desk, show-case or counter. The telephone mechanism is delicate and the fellow who swings it like a dumbbell while talking is apt to get poor service. I remember an old man once pointed out a fellow to me who was using his desk chair like a rocking-chair, had his feet on his desk, and was balancing his telephone in one hand and gesturing with it. 'Look at that man he said. 'He has his feet where his telephone ought to go and, I suppose, his brains where his

feet out to be.'
"Did you ever see a blacksmith take an iron white-hot from the fire, and start to hammer away upon it? Remember how the sparks flew? Well, that is what I always think of when I see a man hammering on his telephone receiver at the rate of fifty blows a second, to recall the operator. Every time he hits the hook a spark flies in his own brain, because each blow causes a crash in his ear, and, before he is through hammering, his temper is afire. The laughable part of the matter perhaps a full minute. Then he grabbed the is that this man has not succeeded in attracting

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the operator's attention at all. It is necessary to work the hook slowly to recall the operator, for the little electric light signal in front of her fails to work when the receiver hook is moved rapidly.

"Transferring telephone callers from one department to another, when you have a private branch exchange, is a service detail with which many employees are unfamiliar. One department store has made the following rule: 'If, after you have indicated your department, the customer should say, 'I don't want you, I want Book Department, you should say, 'I am sorry, madam; if you will wait one moment I will have you

transferred.'
"To say 'Wrong Department' and hang up the receiver means that the branch operator, believing the conversation at an end, will disconnect the customer, who must then start all over again and make a new call. To hang up in such a case shows as great discourtesy as slamming the door in the face of a person who has knocked by mis-

"To transfer a customer from your department or office to another, keep the receiver at your ear and work the receiver hook slowly until the operator answers and then say, 'Please transfer to the Book Department.'

"A story is told of the days when telephone buying was in its infancy. Some progressive customer rang up a shop to buy a bill of goods. The clerk, new to the game and closed up in one of the sweat-box booths of those days, managed to get the customer's instructions correctly after strenuous efforts. He came forth triumphantly waving the order, but suddenly his face fell and he gasped, 'By George! I forgot to get the address.' It is always well to obtain the address of a customer or patron at once, as it may be forgotten or something may prevent you from obtaining it later.

"If you will have your organization follow the example of the operator and speak with a rising inflection, adding a 'please' to their demands, they will be following a mighty good example and you'll better your service. Don't for one minute think that the little tricks of pronunciation, the emphasis on certain syllables and the quiet tone of voice are just mannerisms put on for effect. They're not. Each one of them has been thought out and trained into the operator to improve the service. And please remember that the operator is human and that you will get fair treatment in return for the sound coin of consideration.

"An old proverb comes to mind which does not need to be changed one whit to fit modern telephone conditions. It runs: 'One can tie knots with one's tongue which cannot be untied with the teeth.' Every day folks are making blunders in using the telephone, the bad effects of which cannot be estimated. So, I say," concluded the telephone man, "you have it in your power to improve your telephone service manifold. You have simply to remember that, in telephoning as well as with other things in life, you get what you give. If your telephone voice wears a frown, don't expect to have the person to whom you are talking come back with a smile. Telephone courtesy, after all, is just common, practical business sense, and the voice with the smile wins."

All this set the Observer to thinking, and then writing; if the story suffers in the telling, it is only through the fault of

The Hosemen



1230 Arch, Business Office

A Poplar subscriber who had been disconnected for non-payment paid his bill and his service was promptly restored, but, much to his surprise, was disconnected a few hours later. Upon complaining to our representatives, a Plant employee called and found that the disconnection was due to a galvanized bucket which was in contact with the 5-A block, thereby breaking one conductor of the P.B. cord. This trouble was cleared at once. BRADFORD.

1230 Arch, Cashiers' Office

A peculiar case of telephone trouble was recently reported by Mr. Clancy, a coin-box inspector in the Philadelphia District.

The instrument, which was located in the rear of a property occupied by foreigners, was frequently reported as being out of order, and after numerous investigations, each of which revealed a quantity of roaches housing in the coin-box, it was discovered that they were being caught between the signal bell and the clapper, resulting in a very poor signal.

Efforts to exterminate the roaches by use of roach salt and a disinfectant were unsuccessful, and we were finally compelled to move the station to another location.

OWENS.

Cleaning Painted Window-Signs

DON'T USE ammonia, sand-soap, white polish astringent or acid cleaners. These articles destroy

USE a soft cloth or chamois rinsed in warm water and rub paint gently.

The Bell Telephone Company of Pennsylvania

Letters have been sent to the Philadelphia druggists requesting their cooperation in keeping our window-signs in good condition, and the accompanying illustration shows the small card of instructions that was enclosed.

KOOB.

Germantown District

In a brief essay, Miss Ethel M. Trend, a Chestnut Hill operator, brings out a point that while not new is nevertheless well to bear in mind:

Even the simplest little acts of kindness have been known to open broad channels for good. The reverse is also true. We never know what friendships and opportunities are closed to us because of unfavorable impressions made by the neglect of these little acts. . . . If each purpose and act expresses the highest standards we know, any hour may open the gateway to a larger field of opportunities."

The Philadelphia Druggists' Association has placed the following sign in the stores of its

Please do not use slugs in the telephone. I am responsible and must pay to the Telephone Company the money for all such slugs used. You are not defrauding the Telephone Company, but me, and all persons found doing this despicable act will be dealt with severely.

- Pharmacy.

Chester District

A farmer who had been canvassed by a salesman later called Miss Violet Elliott, Chief Operator, Chester District, inquiring for the Company's "order-taker." He stated that he did not know the man's name, but described him quite naturally, in the phraseology of his vegetable patch, as "looking like a string-bean." Strange to relate, the salesmen did not fall over each other to claim him as their prospect.

The Business Men's Association of Delaware County held a meeting at Prospect Park on November 12 to which were invited representatives of public service corporations, who were requested to explain the attitude of their respective companies toward the public. Mr. Harry Mathews, our District Manager, who spoke in behalf of the Blue Bell System, presented his subject in a concise and forceful manner, which appeared to make a deep impression on the large audience. The Beacon Light Company and the Philadelphia Suburban Gas & Electric Company were likewise represented on this occasion, which should go far toward promoting a better understanding between the public and the above-mentioned public service corporations.

Collection Efficiency

Per Cent. of Unpaid Accounts at End of Month to New Revenue Net

| | OCLORE | .K, 1913 | |
|--|--------------|----------------------|--------------|
| P | HILADELPH | a Division | |
| Central Office Philadelphia Germantown | 31.0 | | |
| Ат | LANTIC CO | AST DIVISION | |
| Norristown Doylestown West Chester . Trenton | 18.1 22.9 | Camden Wilmington | 34.5 35.3 |

| Doylestown 18.1 | Camden | 34.5 |
|-------------------|---------------|------|
| West Chester 22.9 | Wilmington | 35.3 |
| Trenton 26.6 | Atlantic City | 38.2 |
| Dover 26.9 | • | |
| Harrisbur | RG DIVISION | |
| Lancaster 5.0 | Reading | 21.8 |
| Carlisle 7.4 | Scranton | |
| Altoona 9.1 | Lebanon | 23.5 |
| Huntingdon 10.4 | Waynesboro | 24.2 |
| Ridgway 10.4 | Wilkes-Barre | 25.8 |
| Bethlehem 12.1 | Clearfield | 26.2 |
| Honesdale 13.6 | Pittston | 27.9 |
| Wellsboro 13.6 | Bellefonte | 28.5 |
| Williamsport 16.9 | Easton | 29.5 |
| Allentown 19.0 | Coudersport | 29.5 |
| Chambersburg 19.1 | Hazleton | 29.9 |
| Nanticoke 19.3 | Lock Haven | 30.8 |
| Bloomsburg 19.7 | Carbondale | 31.5 |
| Sunbury 20.2 | Shamokin | 32.9 |
| Towanda 20.4 | Emporium | 38.8 |
| Berwick 20.5 | | |
| Lewistown 20.8 | Harrisburg | 43.1 |
| V., -1. 00.0 | | |

| Clearneid 26.2 |
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| Lock Haven 30.8 |
| Carbondale 31.5 |
| Shamokin 32.9 |
| Emporium 38.8 |
| Pottsville 42.3 |
| Harrisburg 43.1 |
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| D |
| Division |
| Sistersville 30.9 |
| Charleroi 31.0 |
| Sharon 31.7 |
| Uniontown 32.3 |
| New Castle 33.0 |
| Steubenville 33.0 |
| North East 33.8 |
| Corry 33.9 |
| Bedford 34.6 Butler 35.2 |
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| Granton |
| Dubois 45.3 Washington 45.6 |
| VV Commission |
| Youngsville 49.8 Erie 51.3 |
| Parkersburg 54.6 |
| Carrollton 55.2 |
| Meadville 71.1 |
| Johnstown115.8 |
| Johnstown |
| |
| |





The Philadelphia Telephone Society

Griffith Hall, 1420 Chestnut Street. Thursday, December 4, 8 P.M.

Speaker: Mr. Gerard Swope, Vice-President

of Western Electric Company.

Subject: "The Western Electric" Company's Place in the Bell System.' Mr. F. H. Bethell, Mr. Kinnard and Mr. Hayward have been asked to comment on the paper.

The Cross Talk Club

The Cross Talk Club dined and cross-talked for the ninety-fourth time on Tuesday night, November 18. Mr. R. L. Barrows, the speaker of the evening, read an interesting paper on "Telephone Service." The other speakers of the evening, who discussed the paper, were F. B. Evans, J. L. Kilpatrick, A. B. Detweiler, F. D. Meigs, J. M. Repplier, J. H. Hons, P. C. Staples, A. H. Osterman, F. Taggart and F. C.

Modern Bear Hunting

In Pocahontas County, W. Va., they have an entirely new use for the telephone, according to Local Manager E. J. Thompson of our Clarksburg office, who once each year makes a hunting trip to that county.

Many bears are killed during the hunting season in Pocahontas County, and in order to facilitate the hunting of the bears the hunters have recourse to the long rural telephone lines which traverse this section. The runways of the bears are fairly well known, and when a bear is discovered and started into a cross-country run, instead of following him on foot or horseback, as was formerly done. calls are made on the telephone and notice given of the time of the bear's start, the course he is traveling, and the probable time of his arrival at distant points. The person receiving the message hangs up his receiver, loads his gun, and saunters leisurely

to the designated spot, usually arriving in plenty

of time to kill the bear.

No expression of public opinion on the part of the bear population has been had as to whether or not the bears approve of the class and character of the service furnished in Pocahontas Z. C. GILLESPIE. County.

Organization Changes

The Bell Telephone Company of Pennsylvania

F. B. Payne, Installation Foreman, has been transferred from Wilmington to Chester.

L. Swentzel, formerly Specification Writer at Philadelphia, has been made District Engineer at

Trenton, N. J.

J. A. McGowan, District Foreman at Chester, has become Specification Writer under Plant Engineer, Philadelphia Division.

E. Beam, Tester, and W. A. Mott, switchboard inspector, have been transferred from Central District Telephone Company to Philadelphia.

The Central District Telephone Company

Clarence Vance has been advanced from clerk to District Storekeeper, New Castle District.

E. J. Kunkle, formerly a climber, has been made a foreman in the New Castle District.

W. J. Woods, who was Wire Chief at Greensburg, is now Cable Foreman there.

Ralph Knode, until recently Assistant Wire Chief, is now Plant Wire Chief at Latrobe, Pa.



John Bailey

Superintendent of Safety

Mr. Bailey was born in Montour County, Pa., on October 1, 1868, and was educated in the public schools at Milton, Pa. He began service with the Central Pennsylvania Telephone Supply Company as a messenger boy in 1881, and served until 1885. His school desk faced the window toward the Company office, and when they needed a messenger a card would be placed in the window and young Bailey would get permission to leave school and deliver the message. His pay consisted of what he collected from the patrons, and at the same time he acted as a relief operator.

Mr. Bailey was employed by the Pennsylvania Railroad Company from 1885 until he returned to the Central Pennsylvania Telephone Supply Company in 1892. From this time he has been continually in the employ of the Bell System; first as timekeeper, next Rights-of-Way Assistant at Scranton, later taking records of plant, etc., and then Manager at Scranton.

In 1901 Mr. Bailey accepted a position with the Pennsylvania Telephone Company as Division

Superintendent, Reading, and after the merger of the Pennsylvania Central Company was transferred to Harrisburg as Superintendent of Construction, which position he held until this terri-

tory was merged with The Bell Telephone Company of Pennsylvania, when he was sent to Scranton as Plant Superintendent, Northern Division. When the Pennsylvania Telephone Company's territory was made the Harrisburg Division, Mr. Bailey was transferred to Harrisburg as District Plant Superintendent in charge of the Harrisburg, Altoona and Williamsport Districts, and later to Williamsport, as District Plant Superintendent in charge of the Altoona and Williamsport Districts.

Effective December 1, 1913, Mr. John Bailey becomes Superintendent of Safety, with offices at 1230 Arch

Street, Philadelphia.

Penn's Neck

By E. B. Zerman, Plant Supervisor, Trenton, N. J.

The historical and descriptive writers usually preface their writing with a brief statement as to when a place was settled, how it is situated. review of a portion of its past history, then, getting down to the present day, deal with it as the principal feature of their statements. So in dealing with the historical side of Penn's Neck, N. J., it must be passed on, as there is little of that connected with it. It is a community of less than ten houses and one church situated on a crossroad. This makes it but a corner settlement, and quite a small one at that, but yet is quite an important one, too, as regards the telephone business, as it is on the old Trenton-Brunswick Pike, that pike which to so many telegraph and telephone companies passed for years as impossible to secure permission to erect lines thereon owing to its

being owned and controlled by a prominent railroad company. Soon after this railroad company gave up its title to this broad highway reaching across the state of New Jersey, in what appears when looking at a map as one of the longest straight roads in New Jersey. Then it became possible for other public corporations to use it in the interest of the public good, and it was on this highway that the first link of what has since become the Boston-Washington underground system was installed.

About midway between New York and Philadelphia is the crossroad leading from Princeton to Princeton Junction, and this crossroad junction has the name of Penn's Neck. On one of the four corners this Company, in connection with the A. T. & T. Co., built one of the most modern fire- and storm-proof buildings. Yes, it is small, but it answers its purpose, and none of our more modern buildings answer the purpose better.

Here the New York-Philadelphia underground cable system terminates for testing purposes. There is also a 60-pair underground cable extending from it to the Princeton central office, two miles away.

Every two years thousands of the Princeton Alumni and their friends return to Princeton to see the "Tiger" do up the "Bulldog," and thousands of other visitors rush in to see the "Bulldog" do up the "Tiger." This rush of visitors makes business for us that must be taken care of, and while we are taking care of ours, we must also assist in the distribution of the news to the various press associations and newspapers who demand the quickest and best service.

Here Penn's Neck test station enters very largely in assisting us in rendering this unusually large flow of business that comes to us within a very few hours. At the test station the through circuits are split on the main frame strips and connected to Princeton, and for each big game in

Princeton from twenty to thirty auxiliary circuits are put up to take care of the increased load, besides being able to take care of our friends, the press.

Quite a contrast this is from a few years back when the wire operating companies had no idle facilities to take care of such important conditions.

The run of one of the Poes, which to Princeton is historical, of the wire oper-



may be mention-ed here. None NOT A JAIL—BUT THE PENN'S MECK TEST STATION WHERE MANY CIRCUITS ARE IMPRIS-ONED.

ating companies had enough facilities to enable them to provide the news associations with special service at the field, and messengers were provided mounts on bicycles to take the bulletins to the local offices, when they were forwarded by Morse operators. The local telephone men had gone to the field, installed a telephone on a pole overlooking the field, and from this station telephoned the news of the game to the Information operators at Trenton. They in turn were passing it to New York and Philadelphia Information. An official located in New York was unable to get to the game, and he was getting the news over a Morse circuit. When he learned from the Information operator that Princeton had scored, he questioned the source of the information and directed that he be connected direct to the circuit, and he found that his Morse news was somewhat slower. It is needless to say that he heard the rest of the game in detail by telephone direct, listening in with the Information operators, and no doubt hoping that Poe would not do it again.

Penn's Neck test house has played an important part in the work of adjusting for the public use the plant of two companies, and it is now possible to turn into use at Princeton such facilities as will accommodate all of the business that can be obtained.

Every employee should receive THE TELE-PHONE NEWS regularly. If you do not, or if you know of an employee who does not receive our paper regularly, you will confer a favor upon the editor by reporting the facts to him at once.



Atlantic District

The Atlantic City Wire Chief recently had a trouble report, stating that a certain telephone, which was located in a colored woman's house, was out of order.

The test table operator placed the number on test, and found the trouble to be "receiver off He raised the subscriber by means of the "howler" and told the woman: "Your telephone receiver is off the hook; please hang it up."

This did not clear the trouble, and when called again, she stated: "I done hung up the receiber."

It was necessary to send a station inspector to the house of the subscriber, and when he arrived he found that the woman had driven a nail into the wall and hung the receiver on it.

Camden District

The Victor Talking Machine Company, Camden, N. J., recently arranged to have a fire drill for their 5100 employees. There was a general alarm turned in and the Camden fire department responded, as did the Public Service Electric Company and The Bell Telephone Company with their emergency trucks.

WRIGGINS.

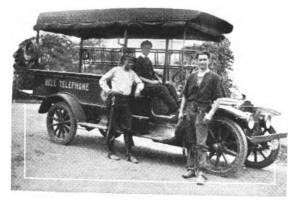
Dover District

On account of a more suitable location being secured the Milton (Del.) central office was moved last month. The removal of the central office required the erection of 600 feet of 50pair, 22-gauge cable and the placing of five 35foot poles. The central office equipment consisted of one section of magneto switchboard of 100 lines, with a 4A arrester rack equipped with No. 7 fuses.

After the completion of the outside plant at the new location, the switchboard was disconnected at the old office and carried down the street to the new office. It required only forty-five minutes to reconnect the subscribers' and trunk lines and have everything tested out O.K. from the time the switchboard was disconnected at the old location.

This job was done under the immediate supervision of Plant Chief J. J. Hartmann, and the Company was complimented very highly on all sides by the subscribers who witnessed the change, due to the short time when they were out of service.

PRINCE.



THE TRUCK USED BY THE PLANT DEPARTMENT AT TRENTON, N. J. LEFT TO RIGHT: FRED HEYDORN, CLIMBER; JOHN FERGUSON, CHAUFFEUR; H. COR-BETT, CLIMBER.

West Chester District

As a result of an invitation extended to the Century Club of Coatesville to inspect our central office of that place, they adjourned after their last meeting to our central office. They all expressed great interest in every detail of the work and spoke very favorably of the same. One of the prominent members stated that she could clearly understand her rates now and felt that they were very just, as she never realized what expensive plant, great forethought, etc., were necessary to furnish telephone service.

The Plant Department are running extensive extensions on aerial cable in Coatesville and vicin-GREENFIELD.

A Real Job

By G. B. Garwood, District Correspondent

We have in the Trenton District an excellent illustration of the kind of cooperation and teamwork which can best be secured by the representa-

tives of the different departments working together harmoniously.

In the smaller exchanges where it is not practicable for a Commercial representative to be present during all of the business hours of the day it is necessary in order to obtain the proper result and preserve the interests of the Company that the members of the other departments be prepared and willing to meet and handle a commercial situation from time to time. At



T. H. SMITH

the Princeton exchange, through the efforts of T. H. Smith, the Wire Chief, we find in the following an illustration of the cooperation just described:

At 2.30 P.M. on November 11 the Wire Chief received information that looked like a prospect. He immediately visited the address given, found sickness there, secured a signed contract and had the service O.K.ed at 3:15, or 45 minutes after receiving the first information relative to the

A further interesting incident occurred, due to the fact that the new subscriber had only recently arrived from England, and he was greatly astonished at the rapidity of our installation work. He told our Wire Chief that, in England, it would take him from six to seven months to obtain his telephone as compared with our fortyfive minutes.

He further asked the Wire Chief how soon he could obtain his long-distance connections to New York and Philadelphia. When the Wire Chief advised him that his telephone was now a longdistance one and that he could reach any place in the Bell System, his astonishment was still greater, as he stated that in England one had to wait from one to two months after the telephone was installed before he could obtain longdistance connections.

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The Western Electric Repair Shop

HE Repair Shop of the Western Electric Company's Philadelphia Distributing House began its work in April, 1901, at Ninth and Market Streets, Philadelphia, with an operating force of 10 men and an 18inch circular saw as its machine equipment. Dur-



A GLIMPSE OF THE FINISHING ROOM

ing the first year only minor repairs to subsets were attempted, and this, with some few switchboards and junction boxes, were the principal items of shop output. C. F. Reifsnyder was shop foreman, assisted by A. C. Grey of the switchboard wiring section (consisting of Mr. Grey and a force of two men) and C. H. Powell and two other cabinetmakers, and this modest force, with its even more modest machine equipment, was the nucleus of what is now the foremost in point or progressiveness and output of all the W. E. Distributing House shops. Of these pioneers in the repair field only two are members of the present shop force—C. H. Powell, now sub-foreman of the cabinet shop, and Frederick Jackle of the subset division.

From 1902 until 1904 the shop steadily progressed in point of force and efficiency, more extensive repairs were attempted (successfully) and to greater variety of apparatus. The machine equipment was increased by the addition of two more saws and a planer in the cabinet shop. It was in this latter year that the location of the Philadelphia branch was changed to its present location at Eleventh and York Streets, where the real development of the shop began. With increased available floor space, additional branches of shop work were taken up. In 1905

the practice of making tie wire was begun in the Philadelphia shop; more extensive repairs were now being made to switchboards and junction boxes; remodeling of some obsolete or little-used types to modern types was done by the cabinet shop, and some items of straight manufacture were added to the shop schedule. Principal among these was the No. 8 type of cable terminals, manufacture of which began in 1906. At this time the shop had a productive force of 130 men and a fairly complete wood-working machine equipment, including 4 single, 2 triple, 2 quadruple and 1/16 multiple drill presses for facility in making the cable terminals. In 1907 the No. 14 type terminals were added to the manufacturing output, and a little later the several sizes of outside junction were also added to the output. This increased activity in the shop continued until the spring of 1908, when for a short period the business depression of that year caused a falling off in the quantity of apparatus returned for repairs, also of demand for manufactured articles. During these few months the shop reached its lowest point of productive force since its beginning in 1901. A force of only 40 men were kept at work until the fall of

1908, when business began again to increase, until in 1909 the peak of productive force was reached at 210 operators. Up to 1909 the several shop foremen were suc-sively, C. F. Reifsnyder, A. C. Grey, F. H. Gilchrist, A. A. Simonson, C. H. Cookingham and J. P. McQuaide (now acting Stores Manager). In this year (1909) the present shop foreman, W. J. Segilkin, was transferred from the New York shop and assumed the duties of shop foreman and Plant Engineer. In 1909 the standardization of shop methods and clerical routine was started. The entire shop layout was revised, standard repair methods adopted,

piece rates developed, the clerical routine revised and simplified. So successfully was this consummated that from a 10 per cent. piece-work

basis in 1909 the shop is now on 70 per cent. piece-work, and the output is more than 40 per cent. greater than that of 1909, with approximately the same operating force of 209 men. The clerical and stock-keeping expense is but 60 per cent. of 1909 charge despite the greater volume of output.

The present shop organization is divided into two separate branches under the supervision of the Stores Manager. The production branch under W. J. Segilkin, foreman, embraces the productive work on repairs or manufacturing, also shop method studies. In addition, the care and maintenance of plant and building is in the foreman's hands. Mr. Segilkin, before

coming to Philadelphia in 1909, spent nineteen years in the New York shops, the greater part of this time being on repair work.

The clerical branch, under R. L. Colfax, includes cost, pay-roll, stock maintenance and storing, development of piece rates, and special studies on clerical routine and shop expense. Mr. Colfax entered the employ of the W. E. Co. in 1907, serving successively in the shop expense, plant record, classification, and shop cost sections at New York. He was transferred to the Philadelphia house as Cost and Pay-Roll Clerk in December, 1909.

Kind Words

Here's a letter we are proud to print from Mr. Paul M. Pearson, representing the Chautauqua Association:

"I write to express the appreciation that we feel for the excellent service that we have had from your Company, both from the calls from Swarthmore and calls elsewhere.

"I should like to speak especially of a young fellow, whose name I do not know, but he wears the number two on his coat and he is at Broad Street Station. He is so uniformly courteous and prompt and efficient that I should like to speak a word of approval."

Our employee mentioned is Clifford T. Weihman.



WHERE TELEPHONE CORDS ARE REPAIRED.

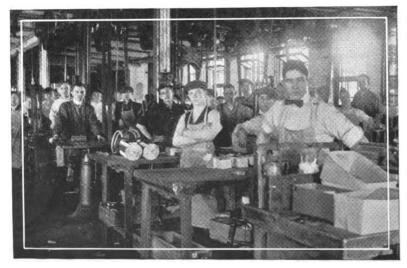
Lancaster, Pa., Improvements

Improvements to be started shortly to our

Lancaster building will allow for a substantial addition to the present apparatus and equipment. The additions will consist of a substantial structure to be constructed in the rear of the new building. This will contain a fire-proof stairway, and metal window frames with wire glass will form an additional protection.

The reconstructed building will house an enlarged Business Office on the first floor. In the basement will be located a new power plant and battery room. On the second floor will be located the new operators' retiring room and the enlarged switchboard together with a new distributing frame.

To the switchboard there will be added two sections, allowing places for six additional operators. This will provide room for 1000 additional subscribers' lines, enough to serve approximately 300 new subscribers. The new work will cost over \$35,000.



GENERAL VIEW OF REPAIR SHOP





Altoona District

The maps recently issued by the A. T. &. T. Company have been very favorably received at various points in the Altoona District. Especially does this seem to be the case with the schoolhouses where in a number of instances the principals have requested one for use in each room. The managing editor of one of the Altoona newspapers has also requested some for use throughout his offices.

At a recent meeting of the Boy Scouts at Lewistown, which was addressed by a prominent banker, our Lewistown Local Manager gave a talk on the history of the telephone and also extended an invitation to all of the boys to visit our operating room. When they gladly accepted this invitation, the Chief Operator thoroughly explained the method of handling calls.

Recently a prospective subscriber at Tyrone Forge advised that if there was no difference in the cost he would prefer a long-distance telephone rather than a short-distance one.

The fact that telephone directory advertising really does pay was brought out recently at Huntingdon, where, during the distribution of the October issue of our directory, an out-of-town subscriber was found who remarked that he very rarely had occasion to use his directory, depending almost entirely on his memory and memoranda. The Local Manager suggested that due to a number of changes in call numbers it would be advisable for him to go over the list carefully. The subscriber started to do this at once, and his attention was attracted by an advertisement which was carefully read and the statement then made that it covered something which he was in the market for and that he intended to make a purchase at once.

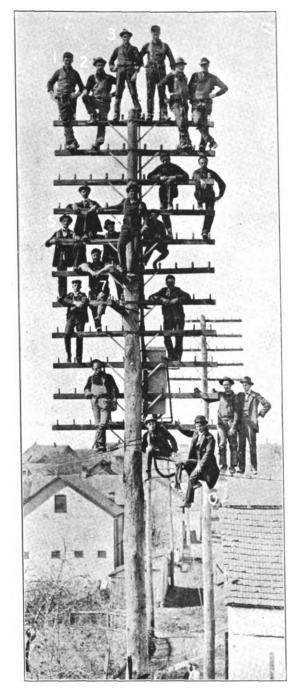
When the directories were to be distributed at Delta, Local Manager Ramsay engaged a small boy, stating to him that he would receive one cent per copy for the delivery of the books. The boy, evidently misunderstanding instructions, collected one cent from each subscriber to whom he gave a book. When Mr. Ramsay was ready to pay the boy, he refused to take the money, saying that he had already been paid. Then Mr. Ramsay made him go around and give back to the various subscribers their pennies; but in very few cases was it taken back, the people considering it a very good joke.

One woman in Latimore township did not want to dispense with the rural telephone installed at their home, especially since an experience she had on Saturday evening. Mrs. E. T. Bream discovered some person out at their barn about nine o'clock and calling up Gardner's store in York Springs, located her husband, who hustled home and found nothing missing but evidences of some person being in and around the barn. The intruder was probably going to steal some chickens and was scared away by the telephone call.

Reading District

A prominent physician called the Local Manager at Pottsville and was very bitter in his denunciation of the Bell service. He said he had no occasion to make any complaint before, but

he thought that it was now time to do so, from the fact that the nurse at his office had tried for nearly twenty minutes to reach him at another point and the operators had told her that he did not answer, and he had been sitting beside the telephone all during that time, and as it was a very serious case he thought we should know



THIS IS THE WAY THE WAYNESBORO (PA.) CENTRAL OFFICE CABLE POLE LOOKED ABOUT NOON ON MARCH 17, 1899. AT THAT TIME THE POLE LINES MARCH 17, 1899. AT THAT TIME THE POLE LINES WERE BEING REBUILT AND EXTENDED. THE OLD STYLE BLAKE TELEPHONE WAS THEN CHANGED TO LONG DISTANCE EQUIPMENT AND A NEW SWITCH-BOARD WAS PLACED. AMONG THOSE IN THE GANG ARE (1) ABE MARTIN, (2) GIB. COFFER, (3) TOM BOLL, (4) DAVY KURTZ, (5) J. W. WEAVER, (6) GEO. RHEA, (7) WM. HERBERT, (8) HAL DANNER, (9) C. LYMAN MEIXEL, (10) ED. O. MEADOW, FOREMAN.

about it. His complaint was immediately given attention by the operator in charge, and it was found that the nurse had been using the opposition telephone, and not being able to reach the doctor, had called on the Bell and got an immediate response, but she failed to explain to the doctor that the delay was caused on the other telephone.

When the real cause was explained to the doctor, he thanked us for our promptness in adjusting his complaint. HYKES.

Scranton District

The following item appeared in one of the Scranton daily papers under the heading, "At-

torney Fools Germs by Installing Telephone":
"W. N. Leach, the attorney, suffering from smallpox at his home, 941 Quincy Avenue, had a Bell telephone installed yesterday in his home and forthwith began calling up his friends and assuring them that he was not so sick he could

not talk.
"The job of putting in the telephone was accomplished under some difficulties. The telephone mechanic carried the wires in as far as the house, bored holes in the wall of the house with an auger and instructed Mr. Leach through the window how to attach the telephone. It was accomplished as slick as can be, the telephone mechanic not coming very near to the door and Mr. Leach staving out of sight.

Attorney Leach called up Dr. W. E. Keller, Superintendent of the Bureau of Health, to report that he was 'feeling better, thank you.'

The following letter has also been received by the Scranton office: The Bell Telephone Co. of Penna.

Local Manager:

At a meeting of the Directors of the Hainemann Hospital, held Tuesday, October 21, the secretary was requested to express to you their appreciation of your effort in supplying Tag Day lieadquarters with a desk telephone. The Board also wished to thank you for the patience and unfailing courtesy of the operators on Tag Day at the telephone exchange

Sincerely,

, Secretary. SMITHING:

Williamsport District

The West Branch Bell Telephone Company of Muncy, Pa., has opened a new central office at Turbotville with 48 subscribers' stations.

Mr. Edward Ritter, who is retiring from the garage business in Milton, Pa., recently took the operators at the local exchange for a delightful atuomobile ride. In order not to interfere with the work at the exchange, half of the operating force went in the afternoon and the others during the evening. The courtesy was in recognition of the excellent service rendered by the operators during Mr. Ritter's business career in Milton.

The following conversation took place between one of our foreign public telephone customers and our Mt. Carmel (Pa.) operator:

'Hello, Mrs. Operator, now much costen me to talk to McAdoo?"

Operator: "Twenty-five cents for three minutes.

"All right, give me — — at McAdoo."

Some time later: "Mrs. Operator, how much minutes me talk?"

Operator: "Two minutes." 'All right, Mrs. Operator, give me some change

A subscriber wrote a letter requesting that her

name appear in "cold type listing in the classical part of the directory." She had evidently not heard distinctly over the telephone.

T. D.

Nearly every fellow has a fad. Amsy Jones has one. He is the collector of unpaid telephone bills, and this is one of the most disagreeable fads a young man can have—Saginaw News.



Dec. 1

How the Good Folks of Germantown Saw a Central Office

By F. R. King, District Correspondent

HEN the Philadelphia Electric Company recently opened its very modern salesroom and office just across the street from our office at No. 26 West Chelten Avenue, Germantown, the occupancy of their new quarters was celebrated by an electrical show, from November 10 to 14. At this time they were kind enough to allow our Company space for an exhibit, of which Supervisor Fetter took charge. He arranged the display of No. 1 and monitor boards, No. 2 sets, P. D. S. stands, and so on, in a very attractive way, while on the walls appeared several appropriate paintings done in oil, surrounded by seasonable decorations of large yellow chrysanthemums and the smaller varieties of autumn flowers and greens. Through-

out the "show" various booklets descriptive of Bell service, as well as advertising novelties, were distributed freely. The visitors, after "going

the rounds" of the several exhibits, were taken in hand by Mr. Fetter or by one of his experienced salesmen, who explained the uses of our equipment and the advantages of Bell service, and then offered to accompany the visitors to the Germantown central office. Here they were turned over to convertent guides, who gave a very clear and "understandable" explanation of the operating methods, after which our guests were given a view of the interior of the switchboards-from the rear-and told of the method of distributing the cables after they are pulled in from the underground system.

Miss I. M. Keenan, our Germantown Chief Operator, was kind enough to make a few notes, and gives an "inside" story as follows:

"Visitors in the Germantown central office:

Monday, Nov. 10, Afternoon, 19 Total Monday....88
" Evening, 69

Tuesday, " 11, Morning, 6 " " Afternoon, 39 Total Tuesday...171 " Evening, 126

Wednesday, " 12, Morning, 12
" " Afternoon 104 Total Wednesday 426
" " Evening, 310

Thursday " 13, Morning 5 " " Afternoon, 60 Total Thursday..321 " " Evening, 256

Friday, " 14, Morning, 5 " Afternoon, 88 Total Friday449 " Evening, 356

Total for 5 days......1455

"The number of employees on duty during visits were:

Morning, 49 Covering 12 "B" positions, 36 "A" positions and 6 Information tables, and operating 4900 lines and 8700 stations.

"If the impression of the modern operating, discipline and equipment, which the subscribers and prospective subscribers who visited the Ger-

mantown central office expressed their wondering appreciation of, lasts in their minds, I feel sure we will not hear from many with a desire to complain but with a feeling to help the Company, through its Chief Operator, to adjust some error or trouble. Many said that most of their past troubles, which they explained were few, were due to crude ideas which they had concerning our system and organization, and since these had been explained they feel that they were at fault and now will be better able to help themselves when trouble is experienced.

"They were greatly impressed by the entire concentration of every girl while on duty, and the total forgetfulness of surrounding conditions. The quietness of the room where so many voices were in use, and the deftness and speed in handling the cords, was spoken of as being remarkable.

"Everyone seemed so friendly and thought the idea of showing the public through the office an excellent one, as it did them so much good. I sometimes think the suggestion offered by one of

THE FEC

"THE OBJECT OF THE EXHIBIT WAS TO INTEREST THE PUBLIC SO THAT THEY WOULD VISIT THE CENTRAL OFFICE."

our 'heavy' users during a visit to our office some time ago as worthy of mention. He said the Company should build a balcony in the operating room where the public might come and view the operating, and in this way educate them, and he thought in a few years we could dispense with complaint clerks.

"Most of the questions addressed during an explanation were, 'Where does my line terminate?' 'Which operator answers our phone? I believe it is the voung lady in back of you, as I recognize the way she rolls her three, or that foreign pronunciation of her five.' 'What are the duties of the person walking in back of the girls who are operating?'

"The entire force conducted themselves splendidly and were congratulated by many. Everyone accepted the visits in the proper spirit and tried to show the public that it was their earnest endeavor to render good service pleasantly, and by so doing were making it easier for themselves or successors in later years.

"Of the 1455 visitors there were about eighteen children, and nearly all were sorry when the time came to leave. Proud parents would say, 'He

seems so wonderfully inclined toward electricity as an explanation for his desire to remain. I this fascination for the lights grows in thes young hopefuls, I think we will have some won derful genii in electricity some day.

"The lunch room appealed to many, especially the sex which our grandmothers say 'can be reached through their stomachs,' for the tables really looked inviting, with luscious grapes, rosycheeked apples, delicious sandwiches and steaming coffee. It was explained to the visitors that the minds of the girls in these quarters were allowed to relax and merriment could be indulged in to moderation.

"The visitors were delighted when presented with a white carnation on their departure, and expressed their appreciation in high terms of all the benefits derived from their telephones, and also of the impossibility of existing without one. A small poodle carried in the arms of its mistress voiced his opinion, at the direction of its mistress, by squeezing a ball with a whistle attachment in

his mouth to illustrate to me that he too was thankful. This latter case was near the exit and didn't in any way disconcert the girls on duty. "Generally speaking, I think

"Generally speaking, I think we were benefited greatly by the visits, as we know that many of our public really know the operator is human, and of the 1455 people who came in, at least 900 of them were prominent in social circles or in professional lines and may spread their impressions broadcast."

Mr. Fetter reports quite a number of good prospects and that his men have since "closed" several of them, although the object of the exhibit was to interest the public so that they would visit the central office.

As a whole, we had a very successful week, and District Manager Hull is with me in saying that every employee in the Germantown District did splendid work toward helping the public to understand our policies, our methods, and our

willingness to cooperate with them to furnish the very best of service at all times.

Stationery Notes

In the future the specially inked typewriter ribbons which we contracted for will be furnished. This special inking applies only to black record ribbons.

The Sphinx No. 5320 drawing table has beer adopted as standard. Requisitions should specify the size desired and also whether table should be furnished with or without a drawer.

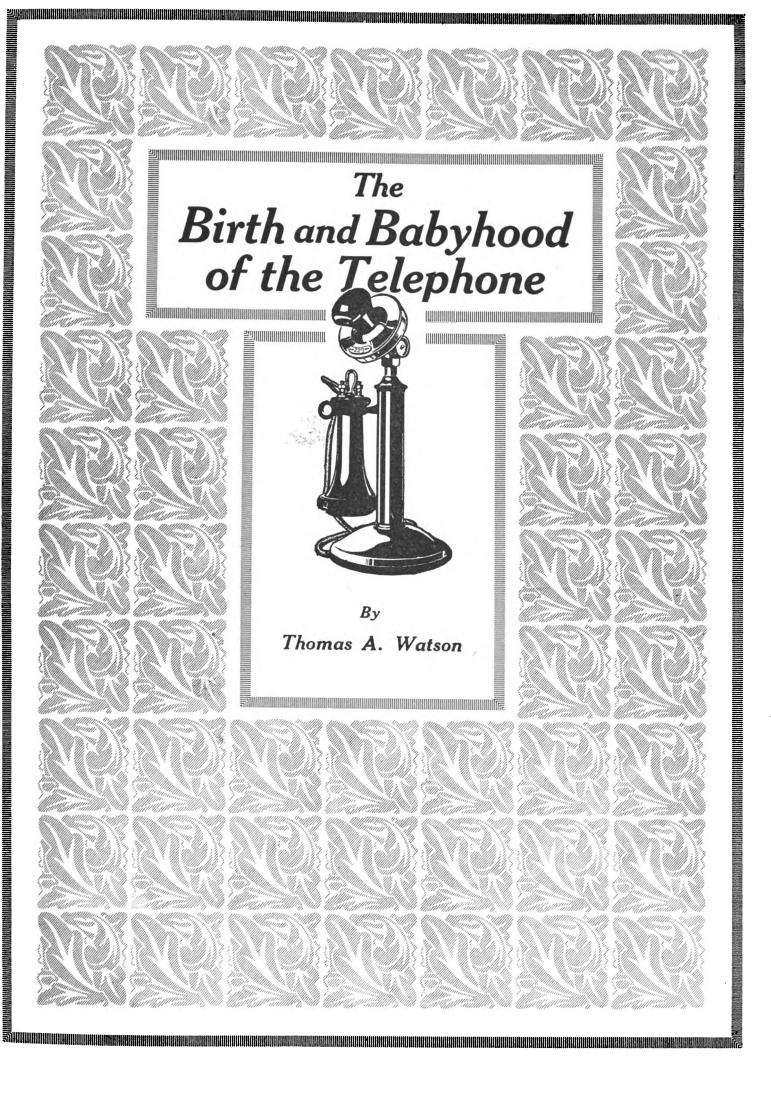
No. 11 Bell Telephone ball-pointed pens have been selected as standard for the use of draughtsmen.

Hereafter an engraved seal will be used in place of the printed seal on business cards.

Some Class

"How would you classify a telephone girl? Is hers a business or a profession?"
"Neither. It's a calling."







to

The Birth and Babyhood of the Telephone

By Thomas A. Watson

An Address delivered before the Third Annual Convention of the Telephone Pioneers of America at Chicago, October 17, 1913. Reprinted through courtesy The Telephone Review, New York



Thomas & Watson

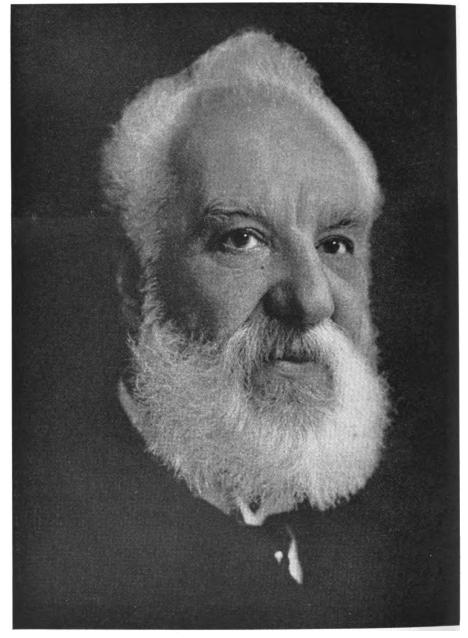
AM to speak to you of the birth and babyhood of the telephone, and something of the events which preceded that important occasion. These are matters that must seem to you ancient history, in fact, they seem so to me, although the events all happened less than 40 years ago, in the years 1874 to 1880.

The occurrences of which I shall speak, lie in my mind as a splendid drama, in which it was my great privilege to play a part. I shall try to put myself back into that wonderful play, and tell you its story from the same attitude of mind I had then—the point of view of a mere boy, just out of his apprenticeship as an electro-mechanician, intensely interested in his work, and full of boyish hope and enthusiasm. Therefore, as it must be largely a personal narrative, I shall ask you to excuse my many "Is" and "mys" and to be indulgent if I show how proud and glad I am that I was chosen by the fates to be the associate of Alexander Graham Bell, to work side by side with him day and night through all these wonderful happenings that have meant so much to the world.

The Williams Electrical Workshop

I realize now what a lucky boy I was, when at 13 years of age I had to leave school and go to work for my living, although I didn't think so at that time. There's a "tide in the affairs of men," you know, and that was the beginning

of its flood in my life, for after trying several vocations—clerking, bookkeping, carpentering, etc.—and finding them all unattractive, I at last found just the job that suited me in the electrical workshop of Charles Williams, at 109 Court Street, Boston—one of the best men I have ever known. Better luck couldn't befall a boy than to be brought so early in life under the



DR. ALEXANDER GRAHAM BELL



THOMAS A. WATSON IN 1874

influence of such a high-minded gentleman as Charles Williams.

I want to say a few words about my work there, not only to give you a picture of such a shop in the early '70s, but also because in this shop the telephone had its birth and a good deal of its early development.

I was first set to work on a hand lathe turning binding posts for \$5 a week. The mechanics of to-day with their automatic screw machines, hardly know what it is to turn little rough castings with a hand tool. How the hot chips used to fly into our eyes! One day I had a fine idea. I bought a pair of 25 cent goggles, thinking the others would hail me as a benefactor of mankind and adopt my plan. But they laughed at me for being such a sissy boy and public opinion forced me back to the old time honored plan of winking when I saw a chip coming. It was not an efficient plan for the chip usually got there first. There was a liberal education in it for me in manual dexterity. There was no specializing in these shops at that time. Each workman built everything there was in the shop to build, and an apprentice also had a great variety of jobs, which kept him interested all the time, for his tools were poor and simple and required lots of thought to get a job done right.

Studies and Experiments

There were few books on electricity published at that time. Williams had copies of most of them in his show case, which we boys used to read noons, but the book that interested me most was Davis' Manual of Magnetism, published in 1847, a copy of which I made mine for 25 cents. If you want to get a good idea of the

state of the electrical art at that time, you should read that book. I found it very stimulating and that same old copy in all the dignity of its dilapidation has a place of honor on my book shelves today.

My promotion to higher work was rapid. Before two years had passed, I had tried my skill on about all the regular work of the establishment—callbells, annunciators, galvanometers, telegraph keys, sounders, relays, registers and printing telegraph instruments.

Individual initiative was the rule in Williams' shop—we all did about as we pleased. Once I built a small steam engine for myself during working hours, when business was slack. No one objected. That steam engine,



MOSES G. FARMER (From an old print)

by the way, was the embryo of the biggest shipbuilding plant in the United States today.

Such was the electrical shop of that day. Crude and small as they were, they were the forerunners of the great electrical works of today. In them were being trained the men who were among the leaders in the wonderful development of applied electricity which began soon after the time of which I am to speak. Williams, although he never had at that time more than 30 or 40 men working for him, had one of the largest and best fitted shops in the country. I think the Western Electric shop at Chicago was the only larger one. That was also undoubtedly better organized and did better work than Williams'. When a

piece of machinery built by the Western Electric came into our shop for repairs, we boys always used to admire the superlative excellence of the workmanship.

Experiences with Inventors

Besides the regular work at Williams', there was a constant stream of wild-eyed inventors, with big ideas in their heads and little money in their pockets, coming to the shop to have their ideas tried out in brass and iron. Most of them had an "angel" whom they had hypnotized into paying the bills. My enthusiasm, and perhaps my sympathetic nature, made me a favorite workman with those men of visions, and in 1873-74 my work had become largely making experimental apparatus for such men. Few of their ideas ever amounted to anything, but I liked to do the work, as it kept me roaming in fresh fields and pastures new all the time. Had it not been, however, for my youthful enthusiasm -always one of my chief assets-I fear this experience would have made me so sceptical and cynical as to the value of electrical inventions that my future prospects might have been injured.

I remember one limber-tongued patriarch who had induced some men to subscribe \$1,000 to build what he claimed to be an entirely new electric engine. I made much of it for him. There was nothing new in the engine but he intended to generate his electric current in a series of iron tanks the size of trunks, to be filled with nitric acid with the usual zinc plates suspended therein. When the engine was finished and the acid poured into the tanks for the first time, no one waited to see the engine run, for inventor, "angel," and workmen, all tried to see who could get out of the shop quickest. I won the race as I had the best start.



ALEXANDER GRAHAM BELL IN 1876



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THOMAS SANDERS IN 1878, AT THE TIME HE WAS THE SOLE FINANCIAL BACKER OF THE TELEPHONE

I suppose there is just such a crowd of crude minds still besieging the work shops, men who seem incapable of finding out what has been already done, and so keep on year after year, thrashing old straw.

The "Harmonic Telegraph"

All the men I worked for at that time were not of that type. There were a few very different. Among them, dear old Moses G. Farmer, perhaps the leading practical electrician of that day. He was full of good ideas, which he was constantly bringing to Williams to have worked out. I did much of his work and learned from him more

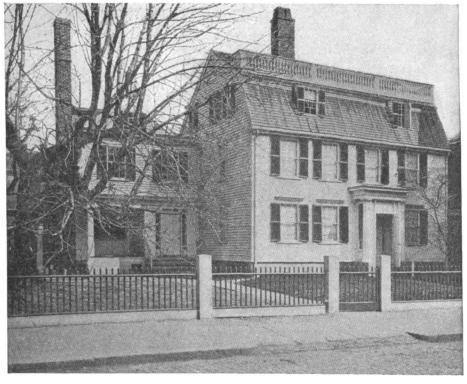
about electricity than ever before or since. He was electrician at that time for the United States Torpedo Station at Newport, Rhode Island, and in the early winter of 1874, I was making for him some experimental torpedo exploding apparatus. That apparatus will always be connected in my mind with the telephone, for one day when I was hard at work on it, a tall, slender, quick-motioned man with pale face, black side whiskers and drooping mustache, big nose and high sloping forehead crowned with bushy, jet black hair, came rushing out of the office and over to my work bench. It was Alexander Graham Bell whom I saw then for the first time. He was bringing to me a piece of mechanism which I had made for him under instructions from the office. It had not been made as he had directed and he had broken down the rudimentary discipline of the shop in coming directly to me to get it altered. It was a receiver and a transmitter of his "Harmonic Telegraph," an invention of his with which he was then endeavoring to win fame and fortune. It was a simple affair by means of which, utilizing the law of sympathetic vibration, he expected to send six or eight Morse messages on a single wire at the same time, without interference.

Although most of you are probably familiar with the device, I must, to make my story clear, give you a brief description of the instruments, for

though Bell never succeeded in perfecting his telegraph, his experimenting on it led to a discovery of the highest importance.

The essential parts of both transmitter and receiver were an electro magnet and a flattened piece of steel clock spring. The spring was clamped by one end to one pole of the magnet, and had its other end free to vibrate over the other pole. The transmitter had, besides this, make-and-break points like an ordinary vibrating bell which, when the current was on, kept the spring vibrating in a sort of nasal whine, of a pitch corresponding to the pitch of the spring. When the signal-ling key was closed, an electrical copy of that whine passed through the wire and the distant receiver. There were, say, six transmitters with their springs tuned to six different pitches and six receivers with their springs tuned Now, theoretically to correspond. when a transmitter sent its electrical whine into the line wire, its own faithful receiver spring at the distant station would wiggle sympathetically but all the others on the same line would remain coldly quiescent. Even when all the transmitters were whining at once through their entire gamut, making a row as if all the miseries this world of trouble ever produced were concentrated there, each receiver spring along the line would select its own from that sea of troubles and ignore all the others. Just see what a simple, sure-to-work invention this was; for just break up those various whines into the dots and dashes of Morse messages and one wire would do the work of six, and the "Duplex" telegraph that had just been invented would be beaten to a frazzle. Bell's reward would be immediate and rich, for the "Duplex" had been bought by the Atlantic and Pacific Telegraph Company, giving them a great advantage over their only competitor, the Western Union Company, and the latter would of course buy Bell's invention and his financial problems would be solved.

All this was, as I have said, theoretical, and it was mighty lucky for Graham Bell that it was, for had his harmonic telegraph been a well behaved apparatus that always did what its parent wanted it to do, the speaking telephone might never have emerged from a certain marvelous conception, that had even then been surging back of Bell's high forehead for two or three years. What that conception was, I soon learned, for he couldn't help speaking about it, although his friends tried to hush it up. They



HOME OF THOMAS SANDERS, SALEM, MASS., WHERE MR. BELL EXPERIMENTED FOR THREE YEARS WHILE TEACHING SCHOOL—1872-1874

didn't like to have him get the reputation of being visionary, or—something worse.

To go on with my story; after Mr. Farmer's peace making machines were finished, I made half a dozen pairs of the harmonic instruments for Bell. He was surprised, when he tried them to find that they didn't work as well as he expected. The cynical Watson wasn't at all surprised for he had never seen anything electrical yet that worked at first the way the inventor thought it would. Bell wasn't discouraged in the least and a long course of experiments followed which gave me a steady job that winter and brought me into close contact with a wonderful personality that did more to mould my life rightly than anything else that ever came into it.

I became mightily tired of those "whiners" that winter. I called them by that name, perhaps, as an inadequate expression of my disgust with their persistent perversity, the struggle with which soon began to take all the joy out of my young life, not being endowed with the power of Macbeth's weird sisters to

"Look into the seeds of time, And say which grain will grow and which will not."

Let me say here, that I have always had a feeling of respect for Elisha Gray, who, a few years later, made that harmonic telegraph work, and vibrate well-behaved messages, that would go where they were sent, without fooling with every receiver on the line.

Most of Bell's early experimenting on the harmonic telegraph was done in Salem at the home of Mrs. George Sanders, where he resided for several years, having charge of the instruction of her deaf nephew. The present Y. M. C. A. building is on the site of that house. I would occasionally work with Bell there but most of his experimenting in which I took part was done in Boston.

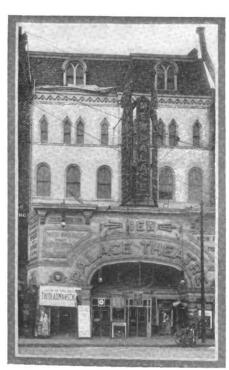
Beii's Theory of Transmitting Speech

Mr. Bell was very apt to do his experimenting at night, for he was busy during the day at the Boston University, where he was Professor of Vocal Physiology, especially teaching his father's system of visible speech, by which a deaf mute might learn to talk—quite significant of what Bell was soon to do in making mute metal talk. For this reason I would often remain at the shop during the evening to help

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him test some improvement he had had me make on the instruments.

One evening when we were resting from our struggles with the apparatus, Bell said to me: "Watson, I want to tell you of another idea I have, which I think will surprise you." I listened, I suspect, somewhat languidly, for I must have been working that day about sixteen hours with only a short nutritive interval, and Bell had already given me during the weeks we had worked together, more new ideas on a great variety of subjects, including visible speech, elecution and flying machines, than my brain could assimilate, but when he went on to say that he had an idea by which he believed ic would be possible to talk by telegraph, my nervous system got such a shock that the tired feeling vanished. I have never forgotten his exact words; they have run in my mind ever since like a mathematical formula. "If," he said, "I could make a current of electricity vary in intensity, precisely as the air varies in density during the production of a sound, I should be able to transmit speech telegraphically." He then sketched for me an instrument that he thought would do this, and we discussed the possibility of constructing one. I did not make it; it was altogether too costly and the chances of its working too uncertain, to impress his financial backers-Mr. Gardiner



THE BIRTHPLACE OF THE TELEPHONE, 109 COURT ST., BOSTON.—ON THE TOP FLOOR OF THIS BUILDING, IN 1875, PROF. BELL CARRIED ON HIS EXPERIMENTS AND FIRST SUCCEEDED IN TRANSMITTING SPEECH BY ELECTRICITY.



GARDINER G. HUBBARD IN 1876

G. Hubbard and Mr. Thomas Sanders—who were insisting that the wisest thing for Bell to do was to perfect the harmonic telegraph; then he would have money and leisure enough to build air castles like the telephone.

June 2, 1875

I must have done other work in the shop besides Bell's during the winter and spring of 1875, but I cannot remember a single item of it. I do remember that when I was not working for Bell I was thinking of his ideas. All through my recollection of that period runs that nightmare—the harmonic telegraph, the ill working of which got on my conscience, for I blamed my lack of mechanical skill for the poor operation of an invention apparently so simple. Try our best, we could not make that thing work rightly, and Bell came as near to being discouraged as I ever knew him to be.

But this spring of 1875, was the dark hour just before the dawn.

If the exact time could be fixed, the date when the conception of the undulatory or speech-transmitting current took its perfect form in Bell's mind, would be the greatest day in the history of the telephone, but certainly June 2, 1875, must always rank next; for on that day the mocking fiend inhabiting that demonic telegraph apparatus, just as a now-you-see-it-andnow-you-don't sort of a satanic joke, opened the curtain that hides from man great Nature's secrets and gave us a glimpse as quick as if it were through the shutter of a snap-shot camera, into that treasury of things not yet discovered. That imp didn't do this in any kindly, helpful spiritany inventor knows he isn't that kind of a being—he just meant to tantalize and prove that a man is too stupid to grasp a secret, even if it is revealed to him. But he hadn't properly esti-



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mated Bell, though he had probably sized me up all right. That glimpse was enough to let Bell see and seize the very thing he had been dreaming about and drag it out into the world of human affairs.

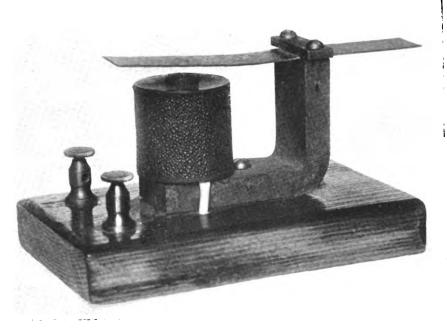
The Telephone Born

Coming back to earth, I'll try and tell you what happened that day. In the experiments on the harmonic telegraph, Bell had found that the reason why the messages got mixed up was inaccuracy in the adjustment of the pitches of the

receiver springs to those of the transmitter. Bell always had to do this tuning himself, as my sense of pitch and knowledge of music were quite lacking—a faculty (or lackulty) which you will hear later became quite useful. Mr. Bell was in the habit of observing the pitch of a spring by pressing it against his ear while the corresponding transmitter in a distant room was sending its intermittent current through the magnet of that receiver. He would then manipulate the tuning screw until that spring was tuned to accord with the pitch of the whine coming from the transmitter. All this experimenting was carried on in the upper story of the Williams building where we had a wire connecting two rooms perhaps sixty feet apart looking out on Court Street.

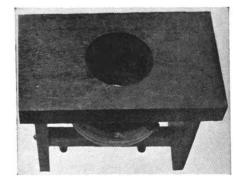
Realization

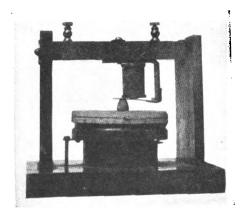
On the afternoon of June 2, 1875, we were hard at work on the same old job, testing some modification of the instruments. Things were badly out of tune that afternoon in that hot garret, not only the instruments, but, I fancy, my enthusiasm and my temper, though Bell was as energetic as ever. I had charge of the transmitters as usual, setting them squealing one after the other, while Bell was retuning the receiver springs one by one, pressing them against his ear as I have described. One of the transmitter springs I was attending to stopped vibrating and I plucked it to start it again. It didn't start and I kept on plucking it, when suddenly I heard a shout from Bell in the next room, and then out he came with a rush, de-



PROF. BELL'S VIBRATING REED

manding, "What did you do then? Don't change anything! Let me see?" I showed him. It was very simple. The make-and-break points of the transmitter spring I was trying to start had become welded together, so that when I snapped the spring the circuit had remained unbroken while that strip of magnetized steel by its vibration over the pole of its magnet, was generating that marvelous con-





ALEXANDER GRAHAM BELL'S FIRST TELEPHONE

ception of Bell'sa current of electricity that varied in intensity precisely as the air was varying in density within hearing distance of that spring. That undulatory current had passed through the connecting wire to the distant receiver which, fortunately, was a mechanism that could transform that current back into an extremely faint echo of the sound of the vibrating spring that had generated it, but what was still more fortunate, the right man had that mechanism at his

ear during that fleeting moment, and instantly recognized the transcendent importance of that faint sound thus electrically transmitted. The shout I heard and his excited rush into my room were the result of that recognition. The speaking telephone was born at that moment. Bell knew perfectly well that the mechanism that could transmit all the complex vibrations of one sound could do the same for any sound, even that of speech. That experiment showed him that the complex apparatus he had thought would be needed to accomplish that long dreamed result was not at all necessary, for here was an extremely simple mechanism operating in a perfectly obvious way, that could do it perfectly. All the experimenting that followed that discovery, up to the time the telephone was put into practical use was largely a matter of working out the details. We spent a few hours verifying the discovery, repeating it with all the differently tuned springs we had, and before we parted that night Bell gave me directions for making the first electric speaking telephone. I was to mount a small drum head of gold beater's skin over one of the receivers, join the center of the drumhead to the free end of the receiver spring and arrange a mouthpiece over the drumhead to talk into. His idea was to force the steel spring to follow the vocal vibrations and generate a current of electricity that would vary in intensity as the air varies in density during the utterance of speech sounds. I followed these directions and had the instrument ready for its trial the very next day.

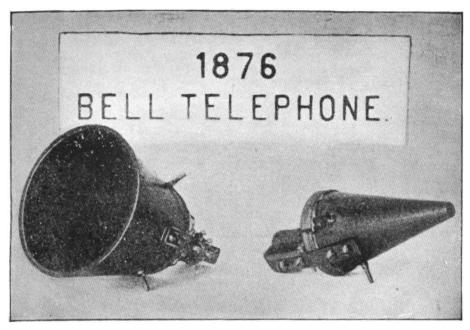


ILLUSTRATION OF TELEPHONE APPARATUS PATENTED IN 1876 BY PROF. BELL, PHOTOGRAPHED FROM THE ORIGINAL INSTRUMENTS IN THE PATENT OFFICE AT WASHINGTON.

I rushed it, for Bell's excitement and enthusiasm over the discovery had aroused mine again, which had been sadly dampened during those last few weeks by the meagre results of the harmonic experiments. I made every part of that first telephone myself, but I didn't realize while I was working on it what a tremendously important piece of work I was doing.

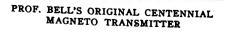
The First Telephone Line

The two rooms in the attic were too near together for the test, as our voices would be heard through the air, so I ran a wire especially for the trial from one of the rooms in the attic down two flights to the third floor where Williams' main shop was, ending it near my work bench at the back of the building. That was the first telephone line. You can well imagine that both our hearts were beating above the normal rate, while we were getting ready for the trial of the new instrument that evening. I got more satisfaction from the experiment than Mr. Bell did, for shout my best I could not make him hear me, but I could hear his voice and almost catch the words. I rushed up stairs and told him what I had heard. It was enough to show him that he was on the right track, and before he left that night he gave me directions for several improvements in the telephones I was to have ready for the next trial.

I hope my pride in the fact that I made the first telephone, put up the first telephone wire and heard the first words ever uttered through a telephone, has never been too ostenta-

tious and offensive to my friends, but I am sure that you will grant that a reasonable amount of that human weakness is excusable in me. My pride has been tempered to quite a bearable degree by my realization that the reason why I heard Bell in that first trial of the telephone and he did not hear me, was the vast superiority of his strong, vibratory tones over any sound my undeveloped voice was then able to utter. My sense of hearing, however, has always been unusually acute, and that might have helped to determine this result.

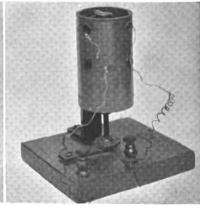
The building where these first telephone experiments were made is still in existence. It is now used as a theater. The lower stories have been much altered, but that attic is still quite unchanged and two weeks ago I stood on the very spot where I snapped those springs and helped test the first telephones thirty-seven years and seven months before.



Mr. Watson Heard the First Sentence Ever Spoken Over the Telephone

Of course, in our struggle to expel the imps from the invention, an immense amount of experimenting had to be done, but it wasn't many days before we could talk back and forth and hear each other's voice. It is, however, hard for me to realize now that it was not until the following March that I heard a complete and intelligible sentence. It made such an impression upon me that I wrote that first sentence in a book I have always preserved. The occasion had not been arranged and rehearsed as I suspect the sending of the first message over the Morse telegraph had been years before, for instead of that noble first telegraphic message—"What hath God wrought?" the first message of the telephone was: "Mr. Watson, please come here, I want you." Perhaps, if Mr. Bell had realized that he was about to make a bit of history, he would have been prepared with a more sounding and interesting sentence.

Soon after the first telephones were made, Bell hired two rooms on the top floor of an inexpensive boarding house at No. 5 Exeter Place, Boston; since demolished to make room for mercantile buildings. He slept in one room; the other he fitted up as a lab-oratory. I ran a wire for him between the two rooms and after that time practically all his experimenting was done there. It was here one evening when I had gone there to help him test some improvement and to spend the night with him, that I heard the first complete sentence I have just told you about. Matters began to move more rapidly and during the summer of 1876, the telephone was talking so well that one didn't have to ask the other man to say it over again more than three or four times before one could understand quite well, if the sentences were simple.



PROF. BELL'S ORIGINAL CENTENNIAL RECEIVER



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The Centennial Exposition

This was the year of the Centennial Exposition at Philadelphia, and Bell decided to make an exhibit there. I was still working for Williams, and one of the jobs I did for Bell was to construct a telephone of each form that had been devised up to that time. These were the first nicely finished instruments that had been made. There had been no money nor time to waste on polish or non-essentials. But these Centennial telephones were done up in the highest style of the art. You could see your face in them. These aristocratic telephones worked finely, in spite of their glitter, when Sir William Thompson tried them at Philadelphia that Summer. I was as proud as Bell himself, when I read Sir William's report, wherein he said after giving an account of the tests: "I need hardly say I was astonished and delighted, so were the others who witnessed the experiment, and verified with their own ears the electric trans-mission of speech. This, perhaps, the greatest marvel hitherto achieved by electric telegraph, has been obtained by appliances of quite a homespun and rudimentary character." I have never forgiven Sir William for that last line. Homespun!

Experimentation

However, I recovered from this blow, and soon after, Mr. Gardiner G. Hubbard, afterwards Mr. Bell's father-in-law, offered me an interest in Bell's patents if I would give up my work at Williams' and devote my time to the telephone. I accepted although I wasn't altogether sure it was a wise thing to do from a financial standpoint. My contract stipulated that I was to work under Mr. Bell's directions, on the harmonic telegraph as well as on the speaking telephone, for the two men who were paying the bills still thought there was something in the former invention, although very little attention had been given to its vagaries after the June 2nd discovery.

I moved my domicile from Salem to another room on the top floor at 5 Exeter Place, giving us the entire floor, and as Mr. Bell had lost most of his pupils by wasting so much of his time on telephones, he could devote nearly all his time to the experimenting. Then followed a period of hard and continuous work on the invention. I made telephones with every modification and combination of their essential parts that either of us could think of. I made and we tested telephones with all sizes of diaphragms made of all kinds of materials—diaphragms of boiler iron several feet in diameter, down to a miniature affair made of the bones and drum of a human ear,

and found that the best results came from an iron diaphragm of about the same size and thickness as is used to-day. We tested electro magnets and permanent magnets, of a multitude of sizes and shapes, with long cores and short cores, fat cores and thin cores, solid cores and cores of wires, with coils of many sizes, shapes and resistances and mouthpieces of an infinite variety. Out of the hundreds of experiments there emerged practically the same telephone you take off the hook and listen today, although it was then transmitter as well as receiver.

"Talking" from Boston to Cambridge

Progress was rapid, and on October 9, 1876, we were ready to take the baby out doors for the first time. We got permission from the Walworth Manufacturing Company to use their private wire running from Boston to Cambridge, about two miles long. I went to Cambridge that evening with one of our best telephones, and waited until Bell signalled from the Boston office on the Morse sounder. Then I cut out the sounder and connected in the telephone and listened. Not a murmur came through! Could it be that although the thing worked all right in the house it wouldn't work under practical line conditions? That fear passed through my mind as I worked over the instrument, adjusting it and tightening the wires in the binding posts, without improving matters in the least. Then the thought struck me that perhaps there was another Morse sounder in some other room. I traced the wires from the place they entered the building and sure enough I found a relay with a high resistance coil in the circuit. I cut it out with a piece of wire across the binding posts and rushed back to my telephone and That was the trouble. Plainly as one could wish came Bell's "ahoy," "ahoy!" I ahoyed back, and the first long distance telephone conversation began. Skeptics had been objecting that the telephone could never compete with the telegraph as its messages would not be accurate. For this reason Bell had arranged that we should make a record of all we said and heard that night, if we succeeded in talking at all. We carried out this plan and the entire conversation was published in parallel columns in the next morning's Advertiser, as the latest startling scientific achieve-ment. Infatuated with the joy of talking over an actual telegraph wire, we kept up our conversation until midnight. It was a very happy boy that travelled back to Boston in the small hours with the telephone under his arm done up in a newspaper. Bell

had taken his record to the newspaper office and was not at the laboratory when I arrived there, but when he came in there ensued a jubilation that elicited next morning from our landlady, who wasn't at all scientific in her tastes, the remark that we'd have to vacate if we didn't make less noise nights.

Tests on still longer telegraph lines soon followed—the success of each experiment being in rather exact accordance with the condition of the poor rusty-jointed wires we had to use. Talk about imps that baffle inventors! There was one of an especially vicious and malignant type in every unsoldered joint of the old wires. The genial Tom Doolittle hadn't even thought of his hard drawn copper wire then, with which he later eased the lot of the struggling telephone man.

Our Many Visitors

Meanwhile the fame of the invention had spread rapidly abroad and all sorts of people made pilgrimages to Bell's laboratory to hear the telephone talk. A list of the scientists who came to the attic of that cheap boarding house to see the telephone would read like the roster of the American Association for the Advancement of Science. My old electrical mentor, Moses G. Farmer, called one day to see the latest improvements. He told me then with tears in his eyes when he first read a description of Bell's telephone he couldn't sleep for a week, he was so mad with himself for not discovering the thing years before. "Watson," said he, "that thing has flaunted itself in my very face a dozen times within the last ten years and every time I was too blind to see it."
"But," he continued, "if Bell had known anything about electricity he would never have invented the tele-phone."

Two of our regular visitors were young Japanese pupils of Professor Bell—very polite, deferential, quiet, bright-eyed little men, who saw everything and made cryptic notes. They took huge delight in proving that the telephone could talk Japanese. A curious effect of the telephone I noticed at that time was its power to paralyze the tongues of men otherwise fluent enough by nature and profession. I remember a prominent lawyer, who when he heard my voice in the telephone making some such profound remark to him as, "How do you do," could only reply, after a long pause, "Rig a jig jig and away we go."

A "Wireless Telephone"

Men of quite another sort came occasionally. Mr. Hubbard received a letter one day from a man who

wrote that he could put us on the track of a secret that would enable us to talk any distance without a wire. This interested Mr. Hubbard and he made an appointment for the man to meet me. At the appointed time, a stout, rather unkempt man made his appearance. He didn't take the least interest in the telephone; he said that was already a back number, and if we would hire him for a small sum per week we would soon learn how to telephone without any apparatus or any wires. He went on to tell in a most convincing way how two prominent theatrical men in New York, whom he had never seen, had got his brain so connected into their circuit that they could talk with him at any time, day or night, and make all sorts of fiend-ish suggestions to him. He didn't know yet how they did it, but he was sure I could find out their secret, if I would just take the top off his head and examine his brain. It dawned on me then that I was dealing with an insane man. I got rid of him as soon as I could by promising to experiment on him when I could find time. The next I heard of the poor fellow he was in the violent ward of an insane asylum. Several similar cases of insanity attracted by the fame of Bell's occult (!) invention called on us or wrote to us within a year of that time.

Telephone Installations

We began to get requests for telephone installations long before we were ready to supply them. In April, 1877, the first out door telephone line was run between Mr. Williams' office at 109 Court Street and his house in Somerville. Professor Bell and I were present and participated in the important ceremony of opening the line and the event was a headliner in the next morning's papers.

Financial Problems

At about this time Professor Bell's financial problems had begun to press hard for solution. We were very much disappointed because the President of the Western Union Telegraph Company had refused, somewhat contemptuously, Mr. Hubbard's offer to sell him all the Bell patents for the exorbitant sum of \$100,000. It was an especially hard blow to me, for while the negotiations were pending I had had visions of a sumptuous office in the Western Union Building in New York which I was expecting to occupy as Superintendent of the Telephone Department of the great telegraph company. However, we recovered even from that facer. Two years later the Western Union would gladly have bought those patents \$25,000,000.

But before that happy time there were lots of troubles of all the old and of several new varieties to be surmounted. Professor Bell's particular trouble in the Spring of 1877 arose from the fact that he had fallen in love with a most charming young lady. I had never been in love myself at that time and that was my first op-



ORIGINAL BOX TELEPHONE USED IN BOSTON-NEW YORK DEMONSTRATIONS

portunity of observing what a serious matter it can be, especially when the father isn't altogether enthusiastic. I rather suspected at that time that that shrewd but kind-hearted gentleman put obstacles in the course of that true love, in order to stimulate the young man to still greater exertions in perfecting his inventions. But he might have thought as Prospero did:

"They are both in either's power; but this swift business I must uneasy make, lest too light winning Make the prize light."

Bell's immediate financial needs were solved, however, by the demand that began at this time for public lectures by him on the telephone. It is hard to realize today what an intense and wide-spread interest there was then in the telephone. I don't believe any new invention could stir the public today as the telephone did then, surfeited as we are now with the wonderful things that have been invented since.

Leasing Instruments a Far Sighted Policy

These lectures are important for another reason than that they solved a temporary money problem. They obviated the necessity of selling telephones outright, instead of leasing them so as to retain control—a policy Mr. Hubbard afterwards adopted which made possible the splendid universal service Mr. Vail with your help has given the Bell system today. Some of the ladies deeply interested

in the immediate outcome were strenuously advocating at this critical juncture making and selling the telephones at once in the largest possible quantities—imperfect as they were. Fortunately for the future of the business the returns from the lectures that began at this very time obviated this danger.

Telephone Lectures

Bell's first lecture, as I have said, was given before a well-known scientific society—the Essex Institute—at Salem, Mass. They were especially interested in the telephone because Bell was living in Salem during the early telephone experiments. first lecture was free to members of the society, but it packed the hall and created so much interest that Bell was requested to repeat it for an admission fee. This he did to an audience that again filled the house. Requests for lectures poured in upon Bell after that. Such men as Oliver Wendell Holmes and Henry W. Longfellow signed the request for the Boston lectures. The Salem lectures were soon followed by a lecture in Providence to an audience of 2,000, by a course of three lectures at the largest hall in Boston-all three packed-by three in Chickering Hall, New York, and by others in most of the large cities of New England. They all took place in the Spring and early summer of 1877, during which time there was little opportunity for experimenting for either Bell or myself, which I think now was rather a good thing for we had become quite stale and needed a change that would give us a new influx of ideas. My part in the lectures was important, although entirely invisible as far as the audience was concerned. I was always at the other end of the wire, generating and transmitting to the hall where Professor Bell was speaking, such telephonic phenomena as he needed to illustrate his lectures. I would have at my end circuit breakers -rheotomes, we called them-that would utter electric howls of various pitches, a lusty cornet player, some-times a small brass band, and an electric organ with Edward Wilson to play on it, but the star per-former was the young man who two years before didn't have voice enough to let Bell hear his own telephone, but in whom that two years of strenuous shouting into mouthpieces of various sizes and shapes had developed a voice with the carrying capacity of a steam calliope. My special function in these lectures was to show the audience that the telephone could really talk. Not only that, I had to do all the singing too, for



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which my musical deficiencies fitted me admirably.

My Telephone Entertainments

Professor Bell would have one telephone by his side on the stage, where he was speaking, and three or four others of the big box variety we used at that time would be suspended about the hall, all connected by means of a hired telegraph wire with the place where I was stationed, from five to twenty-five miles away. Bell would give the audience, first, the commonplace parts of the show and then would come the thrillers of the eveningmy shouts and songs. I would shout such sentences as, "How do you do," "Good evening," "What do you think of the telephone?" which they could be a sound of the sentence of th all hear although the words issued from the mouthpieces rather badly marred by the defective talking powers of the telephones of that date. Then I would sing "Hold the Fort," "Pull for the Shore," "Yankee Doodle," and as a delicate allusion to the Professor's nationality, "Auld Lang Syne." sole sentimental song was "Do Not Trust Him, Gentle Lady." This rep-ertoire always brought the house. After every song I would listen at my telephone for further directions from the lecturer, and always felt the artist's joy when I heard in it the long applause that followed each of my efforts. I was always encored to the limit of my repertoire and sometimes had to sing it through twice.

I have always understood that Professor Bell was a fine platform speaker but this is entirely hearsay on my part for, although I spoke at every one of his lectures, I have never yet had the pleasure of hearing him deliver an address.

First Sound Proof Booth

In making the preparations for the New York lectures I incidentally invented the sound proof booth, but as Mr. Lockwood was not then associated with us, and for other reasons, I never patented it. It happened thus: Bell thought he would like to astonish the New Yorkers by having his lecture illustrations sent all the way from Boston. To determine whether this was practicable, he made arrangements to test the telephones a few days before on one of the Atlantic and Pacific wires. The trial was to take place at midnight. Bell was at the New York end, I was in the Boston laboratory. Having vividly in mind the strained relations already existing with our landlady, and realizing the carrying power of my voice when I really let it go, as I knew I should

have to that night, I cast about for some device to deaden the noise. Time was short and appliances scarce, so the best I could do was to take the blankets off our beds and arrange them in a sort of loose tunnel, with the telephone tied up in one end and the other end open for the operator to crawl into. Thus equipped I awaited the signal from New York announcing that Bell was ready. It came soon after midnight. Then I connected in the telephone, deposited myself in that cavity, and shouted and listened for two or three hours. It didn't work as well as it might. It is a wonder

CITY HALL, LAWRENCE, MASS. Monday Evening, May 28 THE MIRACLE P DISCOVERY WONDERFUL OF THE AGE

Prof. A. Graham Bell, assisted by Mr. Frederic A. Gower, will give an exhibition of his wonderful and miraculous discovery The Telephone, before the people of Lawrence as above, when Boston and Lawrence will be connected via the Western Union Telegraph and vocal and instrumental music and conversation will be transmitted a distance of 27 miles and received by the audience in the City Hall.

Prof. Bell will give an explanatory lecture with this marvellous exhibition.

Cards of Admission, 35 cents Reserved Seats, 50 cents Sale or seats at Stratton's will open at 9 o'clock.

FACSIMILE OF FLIER ADVERTISING PROF. BELL'S LECTURE AT LAWRENCE, MASS., MONDAY EVENING, MAY 28, 1877.

some of my remarks didn't burn holes in the blankets. We talked after a fashion but Bell decided it wasn't safe to risk it with a New York audience. My sound proof booth, however, was a complete success, as far as stopping the sound was concerned, for I found by cautious inquiry next day that nobody had heard my row. Later inventors improved my booth, making it more comfortable for a pampered public but not a bit more sound proof.

"The Suppositious Mr. Watson"

One of those New York lectures looms large in my memory on account of a novel experience I had at my end of the wire. After hearing me sing, the manager of the lectures decided that while I might satisfy a Boston audience I would never do for a New York congregation, so he en-

gaged a fine baritone soloist-a powerful negro, who was to assume the singing part of my program. Being much better acquainted with the telephone than that manager was I had doubts about the advisability of this change in the cast. I didn't say anything, as I didn't want to be accused of professional jealousy, and I knew my repertoire would be on the spot in case things went wrong. I was stationed that night at the telegraph office at New Brunswick, New Jersey, and I and the rest of the usual appliances of that end of the lecture went down in the afternoon to get things ready. I rehearsed my rival and found him a fine singer but had difficulty in getting him to crowd his lips into the mouthpiece. He was handicapped for the telephone business by being musical, and he didn't like the sound of his voice jammed up in that way. However, he promised to do what I wanted when it came to the actual work of the evening, and I went to supper. When I returned to the telegraph office, just before eight o'clock, found to my horror that the young lady operator had invited six or eight of her dear friends to witness the interesting proceedings. Now, besides my musical deficiencies, I had another qualification as a telephone man—I was very modest; in fact, in the presence of ladies, extremely bashful. It didn't trouble me in the least to talk or sing to a great audience, provided, of course, it was a few miles away, but when I saw those girls, the complacency with which I had been contemplating the probable failure of my fine singer was changed to painful apprehension. If he wasn't successful a very bashful young man would have a new experience. I should be obliged to sing myself before those giggling, unscientific girls. This world would be a better place to live in if we all tried to help our fellow men succeed, as I tried that night, when the first song was called for, to make my musical friend achieve a lyrical triumph on the Metropolitan stage. But he sang that song for the benefit of those girls, not for Chickering Hall, and it was with a heavy heart that I listened for Bell's voice when he finished it. The blow fell. In his most delightful platform tones, Bell uttered the fatal words I had foreboded, "Mr. Watson, the audience could not hear that. Won't you please sing?" Bell was always a kindhearted man, but he didn't know. However, I nerved myself with the thought that that New York audience, made sceptical by the failure of that song, might be thinking cynical things about my beloved leader and his telephone, so

I turned my back on those girls and made that telephone rattle with the stirring strains of "Hold the Fort," as it never had before. Then I listened again. Ah, the sweetness of appreciation! That New York audience was applauding vigorously. When it stopped, the same voice came with a new note of triumph in it. "Mr. Watson, the audience heard that perfectly and call for an encore." I sang through my entire repertoire and began again on "Hold the Fort," before that audience was satisfied. That experience did me good, I have never had stage fright since. But the "suppositious Mr. Watson," as they called me then, had to do the singing at all of Bell's subsequent lectures. Nobody else had a chance at the job; one experience was enough for Mr. Bell.

My baritone had his hat on his head, and a cynical expression on his face, when I finished working on those songs. "Is that what you wanted?" he asked. "Yes." "Well, boss, I couldn't do that." Of course he couldn't.

An Exhibition in Lawrence

Another occasion is burnt into my memory that wasn't such a triumph over difficulties. In these lectures we always had another trouble to contend with, besides the rusty joints in the wires; that was the operators cutting in, during the lectures, their highest resistance relays, which enabled them to hear some of the intermittent current effects I sent to the hall. Inductance, retardation and all that sort of thing which you have so largely conquered since, were invented long before the telephone was, and were awaiting her on earth all ready to slam it when Bell came along. Bell lectured at Lawrence, Mass., one evening in May, and I prepared to furnish him with the usual program from the laboratory in Boston.

City Hall, Lawrence, Mass.

Monday Evening, May 28.

The Miracle.

WONDERFUL TELEPHONE DISCOVERY

Of the Age.

Prof. A. Graham Bell, assisted by Mr. Frederic A. Gower, will give an exhibition of his wonderful and miraculous discovery, The Telephone, before the people of Lawrence as above, when Boston and Lawrence will be connected via the Western Union Telegraph, and vocal and instrumental music and conversation will be transmitted a distance of 27

miles and received by the audience in the City Hall.

Prof. Bell will give an explanatory lecture with this marvellous exhibition.

Cards of Admission, 35 cents
Reserved Seats, 50 cents.
Sale of seats at Stratton's will open
at 9 o'clock.

But the wire the company assigned us was the worst yet. It worked fairly well when we tried it in the afternoon, but in the evening every station on the line had evidently cut in its relay, and do my best I couldn't get a sound through to the hall.

The local newspaper generally sent a reporter to my end of the wire to write up the occurrences there. This is the report of such an envoy as it appeared in the Lawrence paper the morning after Bell's lecture there:

"Mr. Fisher returned this morning. He says that Watson, the organist and himself occupied the laboratory, sitting in their shirt sleeves with their collars off. Watson shouted his lungs into the telephone mouthpiece, 'Hoy! Hoy!' and receiving no response inquired of Fisher if he pardoned for a little 'hamburg edging' on his language. Mr. Fisher endeavored to transmit to his Lawrence townsman the tune of 'Federal Street' played upon the cornet, but the air was not distinguishable here. About ten P. M. Watson discovered the 'Northern Lights' and found his wires alive with lightning, which was not included in the original scheme of the telephone. He says the loose electricity abroad in the world was too much for him.'

"Waiting for Watson"

The next morning a poem appeared in the Lawrence paper. The writer must have sat up all night to write it. It was entitled "Waiting for Watson," and as I am very proud of the only poem I ever had written about me, I am going to ask your permission to read it. Please notice the great variety of human feeling, the poet put into it. It even suggests missiles, though it flings none.

Lawrence, Mass., Daily American, Tuesday, May 29, 1877.

WAITING FOR WATSON.

To the great hall we strayed, Fairly our fee we paid, Seven hundred there delayed, But, where was Watson?

Was he out on his beer?
Walked he off on his ear?
Something was wrong, 'tis clear,
What was it, Watson?

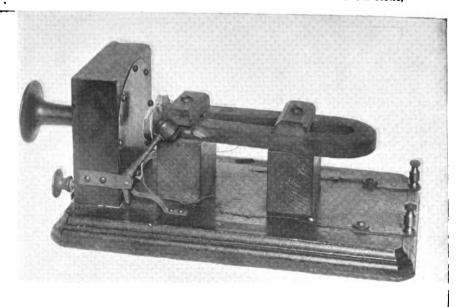
Seven hundred souls were there, Waiting with stony stare, In that expectant air— Waiting for Watson.

Oh! how our ears we strained, How our hopes waxed and waned, Patience to dregs we drained, Yes, we did, Watson!

Softly the bandmen played, Rumbled the Night Brigade, For this our stamps we paid, Only this, Watson!

But, Hope's by fruitage fed, Promise and Act should wed, Faith without works is dead, Is it not, Watson?

Give but one lusty groan, For bread we'll take a stone,

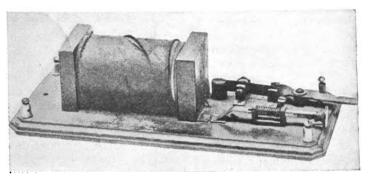


BOX TELEPHONE WITH WATSON HAMMER SIGNAL



How to

\V]



WATSON'S "BUZZER"

Ring your old telephone! Ring, brother Watson!

Doubtless 'tis very fine, When, all along the line, Things work most superfine— Doubtless 'tis, Watson.

Let's hear the thrills and thrums That your skilled digit drums, Sriking our typmpanums— Music from Watson.

We know that, every day, Schemes laid to work and pay, Fair and "gang aft a-gley"— Often, friend Watson.

And we'll not curse, or fling, But, next time, do the thing And we'll all rise and sing "Bully for Watson!"

Or, by the unseen powers, Hope in our bosom sours, No telephone in ours— "Please, Mr. Watson."

My Last Public Appearance

But my vacation was about over. Besides raising the wind, the lectures had stirred up a great demand for telephone lines. The public was ready for the telephone long before we were ready for the public, and this pleasant artistic interlude had to stop; I was needed in the shop to build some telephones to satisfy the insistent demand. Fred Gower, a young newspaper man of Providence, had become interested with Mr. Bell in the lecture work. He had an unique scheme for a dual lecture with my illustrations sent from a central point to halls in two cities at the same time. I think my last appearance in public was at one of these dualities. Bell lectured at New Haven and Gower gave the talk at Hartford while I was in between at Middletown, Conn., with my apparatus, including my songs. It didn't work very well. The two lecturers didn't speak synchronously. Gower told me afterwards that I was giving him, "How do you do," when he wanted "Hold the Fort," and Bell said I made it awkward for him by singing "Do Not Trust Him, Gentle Lady," when he needed the trombone Lady,

The "Gower-Bell" Telephone

In the following August, Professor Bell married and went to England, taking with him a complete set of upto-date telephones, with which he intended to start the trouble in that country. Fred Gower became so fas-



WATSON TYPE OF RINGER

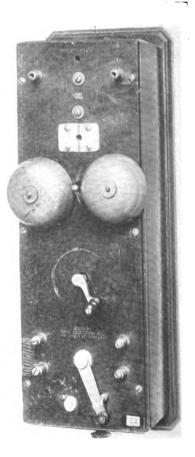
cinated with lecturing on the telephone that he gave up an exclusive right Mr. Hubbard had granted him for renting telephones all over New England, for the exclusive privilege of using the telephone for lecture purposes all over the United States. But it wasn't remunerative after Bell and I gave it up. The discriminating public preferred Mr. Bell as a speaker—and I always felt that the singing never reached the early heights.

Gower went to England later. There he made some small modification of Bell's telephone, called it the "Gower-Bell" telephone, and made a fortune out of his hypenated atrocity. Later he married Lillian Nordica, although she soon separated from him. He became interested in ballooning. The last scene in his life before the curtain dropped showed a balloon over the waters of the English channel. A fishing boat hails him, "Where are you bound?" Gower's voice replies,

"To London." Then the balloon and its pilot drifted into the mist forever.

Developing a Calling Apparatus; the "Watson" Buzzer

As I said, I went back to work, and my next two years was a continuous performance. It began to dawn on us that people engaged in getting their living in the ordinary walks of life couldn't be expected to keep the telephone at their ear all the time waiting for a call, especially as it weighed about ten pounds then and was as big as a small packing case, so it devolved on me to get up some sort of a call signal. Williams on his line used to call by thumping the diaphgram through the mouthpiece with the butt of a lead pencil. If there was someone close to the telephone at the telephone at the other end, and it was very still, it did pretty well, but it seriously damaged the vitals of the machine and therefore I decided it wasn't really practical for the general public; besides we might have to supply a pencil with every telephone and that would be expensive. Then I rigged a little hammer inside the box with a button on the outside. When the button was thumped the hammer



MAGNETO WALL SET (Williams Coffin)

would hit the side of the diaphragm where it could not be damaged, the usual electrical transformation took place, and a much more modest but still unmistakable thump would issue from the telephone at the other end.

That was the first calling apparatus ever devised for use with the telephone, not counting Williams' lead pencil, and several with that attachment were put into practical use. But the exacting public wanted something better, and I devised the Watson "Buzzer"—the only practical use we ever made of the harmonic telegraph relics. Many of these were sent out. It was a vast improvement on the Watson "Thumper," but still it didn't take the popular fancy. It made a sound quite like the horse radish grater automobile signal we are so familiar with now-a-days, and aroused just the same feeling of resentment that does. It brought me only a fleeting fame for I soon superseded it by a magneto-electric call bell that solved the problem, and was destined to make a long-suffering public turn cranks for the next fifteen years or so, as it never had before, or ever will hereafter.

Perhaps I didn't have any trouble with the plaguey thing! The generator part of it was only an adaptation of a magneto shocking machine I found in Davis' Manual of Magnetism and worked well enough, but I was guilty of the jingling part of it. At any rate I felt guilty when letters began to come from our agents reciting their woes with the thing, which they said had a trick of sticking and failing on the most important occasions to tinkle in response to the frantic crankings of the man who wanted you. But I soon got it so it behaved itself and it has been good ever since, for Chief Engineer Carty told me the other day that nothing better has ever been invented, that they have been manufactured by the millions all over the world, and that identical jingler to-day does practically all the world's telephone calling.

"Williams Coffins"

For some reason, my usual good luck I presume, the magneto call bells didn't get my name attached to them. I never regretted this for the agents, who bought them from Williams, impressed by the long and narrow box in which the mechanism was placed, promptly christened them "Williams Coffins." I always thought that a narrow escape for me!

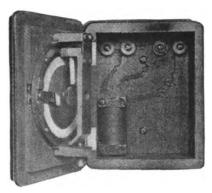
The first few hundreds of these call bells were a continuous shock to me for other reasons than their failure

to respond. I used on them a switch, that had to be thrown one way by hand, when the telephone was being used, and then thrown back by hand to put the bell in circuit again. But the average man or woman wouldn't do this more than half the time, and I was obliged to try a series of devices, which culminated in that remarkable achievement of the human brain—the



FRANCIS BLAKE

automatic switch—that only demanded of the public that it should hang up the telephone after it got through talking. This the public learned to do quite well after a few years of prac-

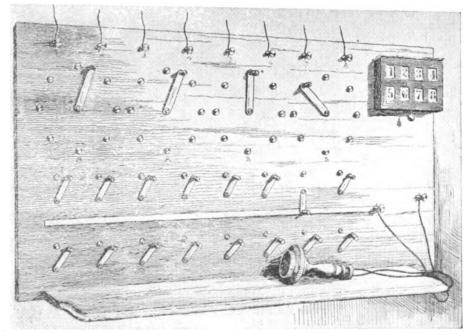


THE BLAKE TRANSMITTER

The Blake Transmitter

You wouldn't believe me if I should tell you a tithe of the difficulties we got into by flexible cords breaking inside the covering, when we first began to use hand telephones!

Then they began to clamor for switchboards for the first centrals, and individual call bells began to keep me awake nights. The latter was very important then, for such luxuries as one station lines were scarce. Six to twenty stations on a wire was the rule, and we were trying hard to get a signal that would call one station without disturbing the whole town. All these and many other things had to be done at once, and, as if this was not enough, it suddenly became necessary for me to devise a battery transmitter. The Western Union people had discovered that the telephone was not such a toy as they had thought, and as our \$100.-000 offer was no longer open for acceptance, they decided to get a share of the business for themselves, and



THE FIRST TELEPHONE SWITCHBOARD USED IN NEW HAVEN, CONN., FOR EIGHT SUBSCRIBERS

\V)

Edison evolved for them his carbonbutton transmitter. This was the hardest blow yet.

We were still using the magneto transmitter, although Bell's patent clearly covered the battery transmitter. Our transmitter was doing much to develop the American voice and lungs, making them powerful but not melodious. This was, by the way, the telephone epoch when they used to say that all the farmers waiting in a country grocery would rush out and hold their horses when they saw any one preparing to use the telephone. Edison's transmitter talked louder than the magnetos we were using and our agents began to clamor for them, and I had to work nights to get up something just as good.

Fortunately for my constitution, Frank Blake came along with his transmit-We bought it ter. and I got a little sleep for a few Then our little David of a corporation sued that big Goliath, the Western Union Company, for in-fringing the Bell patents, and I had to devote my leisure to testifying in that suit, and making reproductions of the earliest apparatus to prove to the court that they would really talk and were not a bluff as our opponents were asserting.

Then I put in the rest of my leisure in making trips among our agents this side of the Mississippi to bring them up to date and see what the enemy were up to. I kept a diary of those trips. It read rather funnily today, but I won't go into that. It would detract from the seriousness of this discourse.

Wire Troubles

Nor must I forget an occasional



THEODORE N. VAIL IN 1878

diversion in the way of a sleet storm which, combining with our wires then beginning to fill the air with house top lines and pole lines along the sidewalks, would make things extremely interesting for all concerned. I don't remember ever going out to erect new poles and run wires after such a catastrophe. I think I must have done so, but such a trifling matter naturally would have made but little impression upon me.

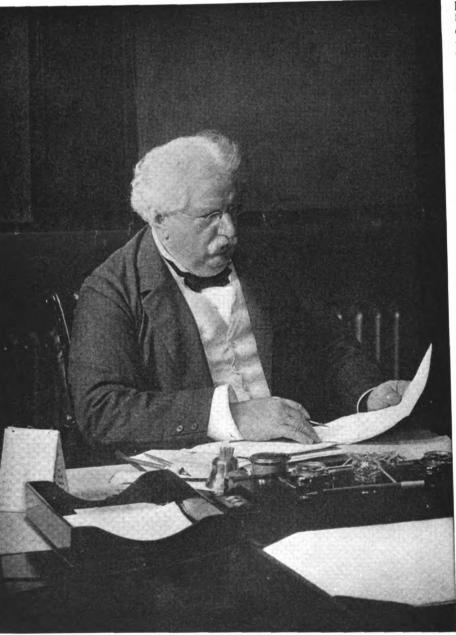
Is it any wonder that my memory of those two years seems like a combination of the Balkan war, the rush hours on the subway and a panic on the stock market?

Memories

I was always glad I was not treas-

urer of the company, although I filled about all the other offices during those two years. Tom Sanders was our treasurer, and a mighty good one he made. Had it not been for his pluck and optimism, we might all of us have failed to attain the prosperity that came to us later. The preparation of this paper has aroused in me many delightful memories, but with them have been mixed sad thoughts too for friends who have gone. Jovial Tom Sanders! How everybody loved No matter him! how discouraging the outlook was, the skies cleared whenever he came into the shop. I can hear his ringing laugh now!

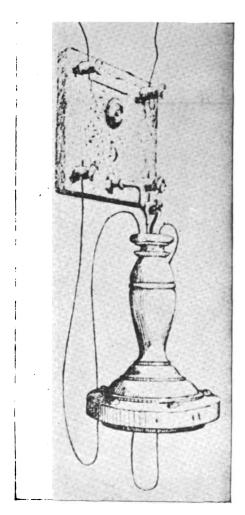
It was a red letter day for me when he hired the first bookkeeper the telephone business ever had—the keen, energetic, systematic Robert W. Devonshire. You must not forget "Dev." I never shall, for after he came I didn't have



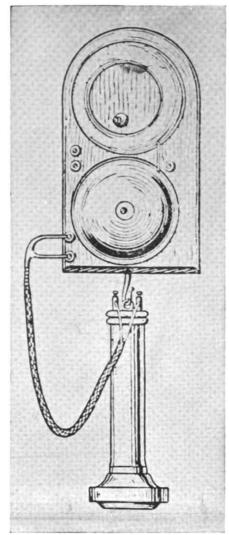
THEODORE N. VAIL



LOCATION OF THE FIRST TELEPHONE SWITCHBOARD IN BOSTON — HOLMES BURGLAR ALARM BLDG.



FIRST TYPE OF TELEPHONES INSTALLED ON SUBSCRIBERS' PREMISES



SHOWING BELLS FIRST IN USE

to keep the list of telephone leases in my head any more.

Then Thomas D. Lockwood was hired to take part of my engineering load, but he developed such an extraordinary faculty for comprehending the intricacies of patents and patent law, that our lawyers captured him very soon, and kept him at work until he practically captured their job. And how proud I was when the company could afford the extravagance of a clerk for me. He is still working for the company—Mr. George W. Pierce.

I suppose I did have some fun during this time, but the only diversion that lingers in my mind is arranging telephones in a diver's helmet for the first time, and finding that the diver could not hear when he was under water, going down myself to see what the matter was. I still feel the pathos of the moment, when, arrayed for the descent, just before I disappeared beneath the limpid waters of Boston harbor, my usually undemonstrative assistant put his arm around my in-

flated neck and kissed me on the glass plate.

The Coming of Theo. N. Vail

But matters soon began to straighten out—the clouds gradually cleared away. The Western Union tornado ceased to rage, and David found to his delight that he had hit Goliath squarely in the forehead with a rock labelled Patent No. 174465. Then for the first time stock in the Bell Company began to be worth something on the stock market.

Something else happened about that time fully as important. The Company awoke to the fact that the Watson generator was overloaded, and that it ought to get a new dynamo. Watson could still hold up the engineering end perhaps, but we must have a business manager. President Hubbard said he knew just the man for us—a thousand horse power steam engine wasting his abilities in the United States Railway Mail Service, and he sent me down to Washington to investigate and report.

I must have ben impressed, for I telegraphed to Mr. Hubbard to hire the man if he could raise money enough to pay his salary. He did so. This was one of the best things I ever helped to do. When the new manager came to work a short time later, he said to me: "Watson, I want my desk along side of yours for a few months



WOODEN HAND TELEPHONE USED COM-MERCIALLY IN 1877. IT RESEMBLES OUR PRESENT DAY RECEIVER

until I learn the ropes." But the balance of the conceit that previous two years had not knocked out of me vanished, when in about a fortnight, I found he knew all I had learned, and that at the end of a month I was toddling along in the rear trying to catch up, which I never did. He has still quite an important position in the business. His name is Vail. May his light never dim for many and many a year!

The Bell System

The needs of the new business attracted other men with good ideas who entered our service, such men as Emile Berliner and George L. Anders and many others. Every agency became a center of inventive activity, each with its special group of ingenious, thinking men—every one of whom contributed something, and sometimes a great deal, to the improvement of apparatus or methods. I remember particularly Mr. Gilliland of Indianapolis, an ingenious man and excellent mechanic, who improved the generator of my magneto call bell, shortening the box and making it less funereal.

He did much also for central office switchboards.

This was the beginning of the great wave of telephonic activity, not only

Turning to Other Activities

My connection with the telephone business ceased in 1881. The strenuous years I had passed through had fixed in me a habit of not sleeping nights as much as I should, and a doctor man told me I would better go abroad for a year or two for a change. There was not the least need of this, but as it coincided exactly with my desires, and as the telephone business had become, I thought, merely a matter of routine, with nothing more to do except pay dividends and fight infringers, I resigned my position as General Inspector of the Company, and went over the ocean for the first

When I returned to this country a year or so later, I found the telephone business had not suffered in the least from my absence, but there were so gin experimenting on flying machines. on which subject he was full of ideas at that early time. I never carried out this agreement. Bell did some notable work on air ships later, but I turned my attention to battleships.

My Greatest Pride

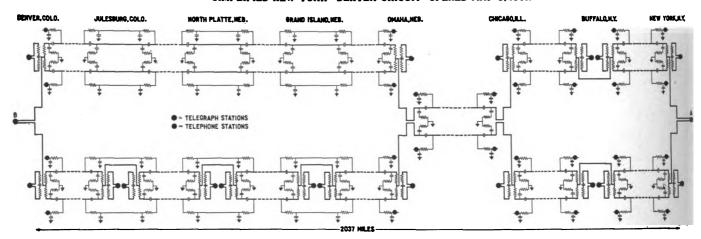
Such is my very inadequate story of the earliest days of the telephone so far as they made part of my life. Today when I go into a central office or talk over a long distance wire or read the annual report of the American Telephone and Telegraph Company, filled with figures up in the millions and even billions, when I think of the growth of the business, and the marvelous improvements that have been made since the day I left it, thinking there was nothing more to do but routine, I must say that all that early work I have told you about

CIRCUIT AND INSTRUMENTS USED BY PROF. BELL OCT. 9,1876.

THE FIRST TIME THAT SATISFACTORY AND SUSTAINED CONVERSATION WAS CARRIED ON BY ELECTRICAL MEANS BETWEEN PERSONS MILES APART.



SIMPLIFIED NEW YORK-DENYER CIRCUIT-OPENED MAY 8, 1911.



WHILE A CONVERSATION IS BEING CARRIED ON BETWEEN NEW YORK AND DENVER, (TELEPHONES A AND BY NINE OTHER INTERNEDIATE TELEPHONE CONVERSATIONS CAM BE GOING ON OVER VARIOUS PARTS OF THE CIRCUIT AND TWENTY—EIGHT TELEGRAPH MESSAGES CAM BE SENT SIMULTANEOUSLY.

in electrical and mechanical invention, but also in business and operative organization, which has been increasing in its force ever since, to which men in this audience have made and are making splendid contributions. day that wave has become a mighty flood on which the great Bell system floats majestically as it moves ever onward to new achievements.

I had been doing, that I didn't care to go into it again.

I was looking for more trouble in life and so I went into shipbuilding, where I found all I needed.

Before Mr. Bell went to England on his bridal trip, we agreed that as soon as the telephone became a matter of routine business he and I would be-

many better men doing the work that seems to shrink into a very small measure, and, proud as I always shall be, that I had the opportunity of doing some of that earliest work myself, my greatest pride is that I am one of the great army of telephone men, every one of whom has played his part in making the Bell Telephone service what it is today.

I thank you.

THE MESS



VOLIX, NO.24

"CENTRAL, HAVE YOU SEEN SANTA?"

DEC. 15, 1913





The Western Electric Company's Place in The Bell System

Synopsis of Paper by Gerard Swope, Vice-President, Western Electric Company (Read before The Philadelphia Telephone Society, December 4, 1913)

HE growth of the close and cordial relations between the Associated Telephone Companies and the Western Electric Company, although spread over several decades, has within the last few years become so pronounced as to be recognizable to almost every employee of both companies. This has been due largely to the contract relationship under which the Western Electric Company is now acting as the purchasing agent and supply department of every Bell Telephone Company and many other telephone companies in the United States and the Western Union Telegraph Company. Such contract relations have not been confined to the Bell Companies, and the Western Electric Company is prepared to enter into similar contracts with any company which, on account of the nature of its business, the Western Electric Company can serve to mutual advantage.

The contract made between the American Bell Telephone Company and the Western Electric Company in 1881 provided that the Western Electric Company should make all of the telephones of the American Bell Telephone Company and otherwise should not make telephones for use in the United States, and that it should make and sell other telephonic apparatus for the licensed companies and otherwise should not sell telephonic apparatus in the United States. It did not provide that the licensed companies should buy exclusively of the Western Electric Company. Upwards of six years ago the original contract between the American Bell Telephone Company and the Western Electric Company was still further modified, enabling the Western Electric Company to sell telephonic apparatus to other

than licensed companies. The manufacturing company was thus left in open competition for the business of the licensed companies. In connection with the sale of its other manufactures, the Western Electric Company gradually built up a large business in the field of line material and other supplies not of its own manufacture. As it developed that the Western Electric Company could purchase these supplies and sell them to the operating companies at better prices than, as individual companies, they could buy their own supplies in the open market, thus this company soon became the largest buyer in the country of such supplies, and a natural foundation was laid for the existing supply contract relationship which followed.

The standard form of contract concentrates in the Western Electric Company the responsibility for all of the purchasing. It enables it to secure for those companies under contract the advantages of quality in buying, and the ability to maintain a corps of specialists in buying, warehousing and distributing which no single operating company could maintain. For the operating companies it has made considerable savings in the first costs of supplies and for the Bell System as a whole it has done much in standardizing plant and decreasing investment, and made large savings in freight charges through better plans of distribution.

The American Telephone & Telegraph Company furnishes the Western Electric Company with specifications as to the types and quantity of material required in the service of the Associated Companies. It furnishes to it in December of each year a general statement of the quantity of material required by the Companies during the following year. This enables it not only to plan in advance the volume of its manufactures during the year, but as well its contracts covering purchases of supplies, and in general to make comprehensive plans for the distribution of such material through its General Sales Department, the factories of its suppliers, and its own chain of distributing houses.

Western Electric Company as Manufacturing Branch of Bell System

The work of the Western Electric Company in connection with the Bell System naturally divides itself into two main divisions:

1. As part of the Engineering Department and the manufacturing branch of the Bell System.

2. As the Purchasing and Supply Department

of the Bell System.

The first function, under which it designs and manufactures apparatus, is one that it performed before the introduction of the purchasing and supply contracts, and which it can still be considered to perform, independent of these contract relations. Its relations with the operating telephone companies as a manufacturer are the same as any other manufacturer who supplies apparatus or merchandise in accordance with the specifications laid down by the Engineering Department of the American Telephone & Telegraph Company.

Caretul studies of its prices on telephone apparatus as compared with those of its competitors in the United States and abroad are continually being made. In no case does it sell the same apparatus to any one in any quantity at prices lower than it does to any of the Associated Companies. That its prices are reasonable is proven by the fact that in open competition for business in the United States during the past five years it has secured an ever increasing share of the business. Further evidence of the reasonableness of the prices on its own manufactures is to be had in Europe, where, in the face of not only keen competition, but also a strong chauvinistic spirit, it has obtained a fair proportion of the business.

A recent detailed study and comparison of prices on its purchases was made by one of the operating companies. It indicated that by buying the products manufactured by the Western Electric Company it had effected a total net saving of 9 per cent. Such comparative studies of prices make no allowance for the superior quality of Western Electric manufactures, but it is reasonable that its apparatus and cable should be better than the products of its competitors, with the aid which it receives from the experience of the operating companies themselves, and the expert advice and supervision of the engineers of the American Telephone & Telegraph Company.

In addition to the superior quality of its apparatus is its uniformity in design. The Western Electric Company is constantly making studies of costs on the various lines it manufactures, as a result of which new designs and improved methods of manufacture are introduced. In the past five years of advancing prices of labor and material, prices for telephone apparatus to the Bell Companies have not increased. On the other hand, as costs have been reduced prices have been Such price-reductions in the abovementioned period have amounted to approximately a million and a half dollars.

On account of the close relations existing between the Western Electric Company and the Bell System, the obligation rests the more heavily upon it to show to any inquiring public service commission that the prices which the Telephone Companies are paying are as low as those which might be secured from others. Where such investigations have been conducted, the commissions have expressed their approval and satisfaction with the contract relation, and have concluded that the prices were reasonable. There have been a number of such conclusions in different parts of the United States. Three different commissions in Chicago, commissions in the East and on the Pacific Coast have investigated this contract relation, and all of them reached the same conclusion that the contract was an advantage to the Telephone Company and that the prices charged were reasonable.

As Purchasing Agent and Supply

The buying and storing of merchandise for the Bell System is such a large problem that it de-Department to mands and has received careful the Bell System study by specialists. Its efficient operation may mean thousands of

dollars additional revenue to the Telephone Companies, as well as making available millions of dollars for investment in plant rather than in idle merchandise. The following functions are within the scope of the standard supply contract:

| Buying Receiving Storing Shipping | New Material. | Receiving Repairing Storing Reissuing | Used Material. |
|--|------------------|--|-------------------|
|--|------------------|--|-------------------|

From this it will be seen that in entering into this contract the Western Electric Company took over certain functions of one or more departments of the Associated Companies, and the relation of this company in carrying out the contract should be, as far as possible, that of a department of the Telephone Company. The distributing houses, which are entrusted with the execution of this relation, should do everything required of such departments, only more comprehensively than could be done by the Telephone Companies. This relationship is fundamental and must be the basis of the decision of many questions which arise from time to time in carrying out the contracts.

By foreseeing the Telephone Companies' requirements, merchandise not manufactured by the Western Electric Company is purchased in large quantities, under the most favorable contracts. Orders are given to suppliers so that they may manufacture in normally slack periods and thus reduce the ultimate cost of goods to the Bell System.

The location of the distributing houses is an important question, and a study was made without reference to the lines separating the various Telephone Companies, but using as a basis the sources of supply, the points of use of the merchandise, the service that must be given, the facilities for distribution, and the freight rates.

A warehouse is opened in a particular city when that city is of such size and the telephone development of such magnitude that a large amount of merchandise will be needed there or in the immediately adjoining territory.

The guiding principle in distributing merchandise is to carry stocks where they are made and make shipments to the places of ultimate consumption with the minimum of rehandling.

Not only at Hawthorne, where the large general merchandise warehouse is located, but also at the many warehouses throughout the United States, studies are being made on better methods



of storing, handling and shipping merchandise, with the idea of improving the service and reducing the cost of such service.

The remuneration to the Western Electric Company for performing these various functions of buying, receiving, storing and shipping merchandise is defined in the contract. In the early contracts the Western Electric Company undertook to do this work at cost, but not to exceed the cost previously borne by the Telephone Company for such service. As the problem was better understood lower rates of remuneration were set, until to-day the standard form of contract provides for rates of remuneration varying from 1 per cent, on direct shipments of certain classes of material, to 6 per cent., the maximum, for

buying, receiving, storing, shipping merchandise, and carrying the investment. Careful supervision and close attention to work must be given by the Western Electric Company if there is to be any resulting net profit with these low rates of remuneration.

In addition to the above the Western Electric Company holds itself in readiness to perform any other functions for the Telephone Company for which, on account of its organization, it seems well adapted; the conversion and disposition of material taken out of plant is a case in point, this

work being done at cost. Central office apparatus Emergency suitable for emergency use Service is held in reserve; but in case of an emergency like the San Francisco or the Baltimore fire, or the floods in the Middle West early in the year, all of the stock and all of the resources of the Western Electric Company itself, and of the many suppliers who are carrying stocks on orders of the Western Electric Company, are available to restore service to the public. Therefore there has been provided for the Associated Company a continuous protected supply of material designed especially for its requirements, designed, made and inspected with a view to low maintenance and good service, distributed at a minimum of expense to the

departments using it.

We have shown the de-Conclusion velopment of the relations

between the Western Electric Company and the Bell System. They have been treated from the standpoint of the manufacturer and the manufacturer's responsibility to the Telephone Company and the public.

We have set forth our conception of the scope of the work as Purchasing and Supply Depart-Such a relation to be efficient must be reciprocal. The Telephone Companies must, in fact as well as in theory, recognize our houses as integral parts of their organization. The closest, most intimate and cordial coöperation is es-

In carrying out our work and in endeavoring to make it more efficient we have analyzed it into its main elements.

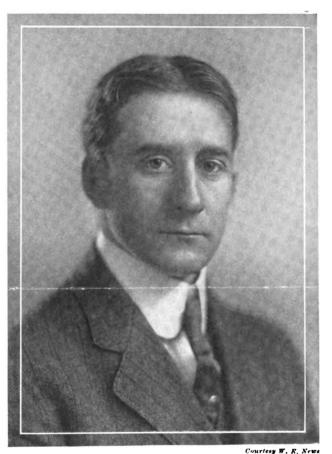
To the heads of the operating departments, the Manager, Stores Managers and their staff, at the local houses, the Company as a whole offers the assistance of a large and efficient organization, including a staff of trained specialists.

It offers them the valuable comparisons which may be made of the work at our various houses, and brings to each manager the advantages of the experience of all houses by regular inspec-

It offers them the scientific analysis of warehouse and clerical problems, and a reduction of these to standard unit costs, using our general warehouse at Hawthorne as a laboratory to work out new and better methods of handling and caring for merchandise.

At all of our houses our organization is such that the Storekeeper for the telephone end of the business is also the Storekeeper for the electric supply business, so that whatever advantages accrue, due to the economies which may be made in a highly competitive business, may also be applied to this business of Storekeeper for the Telephone Company.

Finally, there can be no escape from the conclusion that if our conception of the work is broad, if our standards for each department are intelligently set and are reached, efficient service



GERARD SWOPE

will be rendered to the Telephone Company, en-

abling them, possibly in a small degree, to give better service to the public, which, in the last analysis, is the fundamental basis of the relation that has been built up and is being perfected.

OUR SOCIETIES

The Diamond State Telephone Society

The next meeting will be held on Thursday evening, December 18, at 601 Shipley Street, Wilmington, Del.

Mr. J. R. Anderson, Division Chief Clerk, will be speaker of the evening.

Subject: "The Application of the Company's Regulations."

Northern Pennsylvania Telephone Society

The second meeting of the Northern Pennsylvania Telephone Society was held in the Chamber of Commerce rooms, Wilkes-Barre, November 21, with over one hundred members present.

Mr. P. S. Harkins, Plant Supervisor, Scranton, addressed the society on Plant matters in

general in the Wilkes-Barre and Scranton Districts. Comments were made by Messrs. Brisbin, Shaub, Minnick, Campbell, Suessenguth, Bevan, Dorsey, Thompson, Shepherd and Shafer. The meeting was purely a local affair and was very instructive.

The next regular meeting of the Northern Pennsylvania Telephone Society will be held in the Chamber of Commerce Rooms, Friday evening, December 19. The speaker of the evening will be Mr. J. D. Kennedy, Manager of the West-ern Electric Company, Philadelphia; subject. "Supplies."

The Transposition Club

The November meeting, held in Hotel Henry, Pittsburgh, on the twentieth, was addressed by M. J. Bishop, Superintendent of Right of Way. His subject, "Ordinances," was treated in a very instructive and interesting way.

3290 Club

A meeting of the "3290 Club" was held at Lansdale, Pa., on November 19, at which time the following officers were elected for the ensuing year: President, W. S. Zimmerman; Vice-President, S. C. Price; Secretary and Treasurer, L. Garner. Twenty-six new members were elected to membership at this meeting; thus the club now has a membership of 110. Mr. Godfrey, Plant Supervisor of Outside Districts, read the paper of the evening. The following members discussed the paper; Messrs. McIlwain, Bradley, Orr, Deisinger, Seltzer, Plank, Price, Kinsey, Harvey and Davison.

The next meeting will be held on Wednesday evening, December 17, at eight o'clock, Lansdale. The speaker of the evening will be Mr. Tillston of the Engineering Department.

The Cross Talk Club

Mr. Frank Figner gave a mighty interesting talk on "Planning and Estimate Work" after the club's dinner at Kugler's on December 9. In the discussion that followed, comments were made by Messrs. Speh, Heald, England and Beckman.

Philadelphia Suburban Telephone Society

A meeting of the Shunt Club was held on Tuesday evening, November 25, in Grand Fraternity Hall, 1414 Arch Street, Philadelphia, for the purpose of reorganization.

Mr. S. F. Stringfellow, Plant Supervisor, called

the meeting to order.

The following officers were elected: R. B. White, President; B. D. Murdaugh, Vice-President; J. M. Bonnes. Secretary-Treasurer.

An interesting paper was read by Mr. C. Godfrey, Plant Supervisor Outside Districts, on the subject "Thinking."

This society hereafter will be known as the Philadelphia Suburban Telephone Society.

The Spare Pair Society

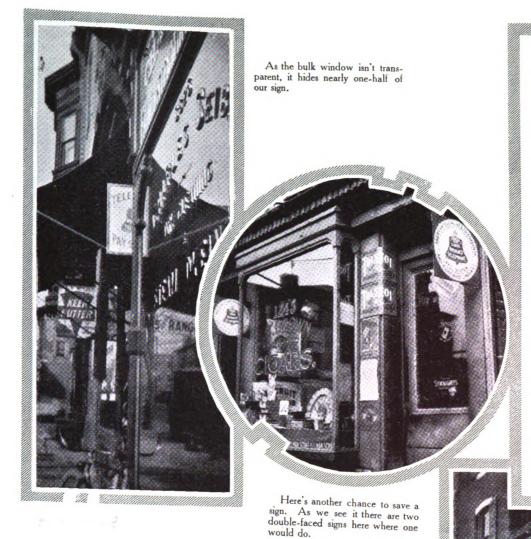
Room 6C, Parkway Building, Broad and Cherry Streets.

Thursday, December 18, 8 P.M. Speaker: Mr. P. W. England, Plant Engineer, Philadelphia Division.

Subject: "Our Mutual Job."

Dear Old Lady (using pay-station telephone for the first time, to operator at the exchange): 'And as you've been so nice and attentive, my dear, I'm putting an extra penny in the box for you.—Punch.





Do You Believe in Signs?

Most of us want to be told, in season and out of season, that we are doing exactly right. Are we afraid of facts? Frankly, your editor doesn't know, but believing that it is a real friend who is willing to criticise, these two pages are devoted to a photographic study of our outside signs at public telephones.

The men responsible for placing public telephone signs have unquestionably done a splendid job, but, knowing that a still better job can be done, it has been suggested that some space be devoted to good, bad and indifferent sign job pictures—with a view to obtaining the best possible sign results in the future. The accompanying illustrations, the News believes, represent typical sign conditions existing throughout our territory.

Where are the signs? Booths are seen in this window—but there are no Bell metal signs on the building.



Just for fun! Here are 123 signs on this small store. It's no easy thing to do a good sign job, and this picture shows how difficult it is to make a good display at some stores.

Do you blame awning makers and store proprietors for removing our signs in cases of this sort? This brand-new awning is punctured.

> Somewhat near the window casing, but actually in the best possible place considering the

station receipts?

Almost out of sight-the two awnings very nearly hide our dis-play. Wouldn't a "B" type sign, play. Wouldn't a "B" type sign, placed a bit lower, bring higher

Digitized by GOOGIE

December 15, 191

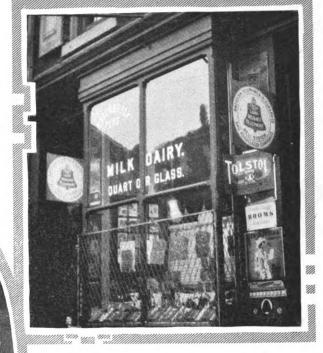
Signs of the Times

To you, Mr. Commercial Man: see how the number, location and type of our telephone signs at public stations largely depend upon you. Consult Mr. Subscriber's wishes regarding sign location. Be sure the locations are right—then go ahead. And next time a contract for a public telephone is signed, make sure that the complete instructions appear on the line orders.

To you, Mr. Plant Man: see how these signs you have placed appear, and remember the desirability of placing signs conspicuously according to line order instructions, but so that neither awnings, building projections, wire doors, other signs, posts nor other things will keep them from making the best possible revenue-producing display.

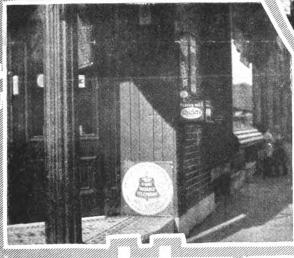
Why spend \$100 when \$50 will do?

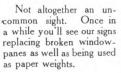
Here are two double-faced signs where one would be suffi-



By the measure these signs are seven feet apart. one kindly tell us why one sign wouldn't do here?

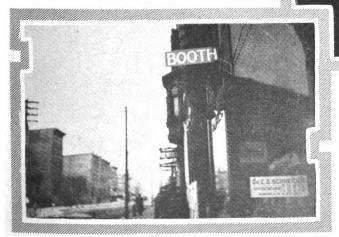
Will some-







For a change, the photographer insisted upon taking this good sign picture. Of course most of our signs are well placed and here is one example.



Another good sign job. Type "B" sign well placed.

Puzzle: Find the standard "A" sign which should appear above the "Booth" sign. We couldn't find one here. Doesn't the "Booth" sign look lonely?

Usefulness just about outlived. A message to the Wire Chief to issue a Plant Order for a new sign relieved



TELLPHONECO



A Quack Telegram

The goose that laid the golden eggs did not create more excitement than did the goose which Thomas Henry, a Western Union messenger, tried to deliver recently to its purchaser.

Thomas, who is employed at the Western Union (Bourse Building) office, Philadelphia, was sent to another room in the same building, in answer to a call for a telegram, and was handed a live goose to deliver to an address on East Indiana Avenue. The goose was almost the size



of the boy, but the latter finally succeeded in leading the bird as far as Seventh and Chestnut Streets. Here the goose, to the amusement of a crowd of followers, positively refused to go further. So Thomas tried the trolley cars, but without success, as the conductors claimed that their cars were for people, not geese.

As it was impossible to telephone the goose to its destination, Henry decided to carry it at times, and at times to let the goose lead him, until the destination was reached—a distance of over five miles.

A Visitor's Impressions of a Central Office Reception

"John, you are late for dinner again! This is the second time in less than a week, and you promised me on Monday that it wouldn't occur again."

"Well, Helen, this time I really have a good excuse. I'm sorry to have kept you waiting, but you won't blame me when I explain. I'll tell you all about it at the table, for I'm not a bit hungry. I've just had some lunch at one of the Bell Telephone central offices."

"Why, John," said his wife, "how did you ever happen to get dinner at the Bell Telephone exchange? Tell me about it."

"Well, you see, I had some business that took me out to Logan this afternoon," answered her husband, seating himself at the table, "and 4:30 found me at the corner of Broad and Rockland Streets. Here the Bell Telephone Company have built a magnificent new central office which they call 'Wyoming.' I was just admiring it when I noticed a large crowd of people going in. I asked a man standing near me the occasion, and he said they were having a formal opening and the public were invited.

"You know, Helen, how anxious I have always been to see a telephone operating room, so I jumped at the opportunity. My only regret is that you weren't with me, for it sure was a treat.

"The building in itself is a beauty, built along the lines of the Georgian period. The business office on the first floor resembles more a large reception hall, the desks being placed to one side and comfortable chairs are in evidence everywhere.

"Right back of the office is what they call the terminal room. Here I was shown the lightning protectors and the test table. The neat, tidy appearance of everything certainly made a hit with the good housekeepers.

"Everybody displayed the greatest interest in the ringing machine. Helen, it's just a small piece of mechanism, and the Wire Chief told me that it rings all the telephones on the board. Right beside it is another which can be put into commission in a minute if anything should happen to the one already working.

"On the second floor the operating room is located. One could hardly get in, for the crowd was thick around the switchboard. I elbowed my way up to what is called the "A" board, where all the outgoing calls are handled, and, I tell you, it was a sight. It extends halfway around the room and contains positions for eighteen operators.

"After seeing all there was to be seen in the operating room, and making a resolution never to lose my temper to an operator, I wandered up to the third floor. Here I found a veritable definition of the word 'thoughtfulness.' This entire floor is devoted to the comfort and convenience of the operators.

"To the front lies a large, well-lighted and thoroughly appointed retiring room. The floors are covered with soft green rugs, and big easy chairs upholstered in leather make it all that can be desired. The center of the roof is occupied by a large mission reading table on which are the current magazines.

"Adjoining the retiring room in a little offset is what they call their hospital. Its equipment is very simple, consisting of a stationary stand with hot and cold running water, a comfortable couch, and a medicine chest in which are aromatic spirits of ammonia, smelling salts, etc.

"I overheard one handsomely gowned visitor say to her companion, 'I have often been told that corporations were heartless, but this seems quite the contrary to me.' 'Yes.' said her friend, 'I'd consider myself fortunate in getting a position here if I were ever thrown on my own resources.'

"Then came the coat room. Here each girl has her own private locker. The umbrella rack attracted a great deal of attention in this room. One's umbrella is locked in the rack and the owner has the key, thus avoiding the usual unpleasantness when you find your umbrella missing. I heard at least twenty people say they were going to get one for their homes.

"Back of the coat room is the combination kitchen and dining room. This presented a gala appearance to-day. The tables were handsomely decorated with candelabra and chrysanthemums, and all of the many visitors were served with sandwiches and ices, so you can't blame me for not eating much now. The appointments of this room are not lacking in comfort. There is a fine big refrigerator, a gas range, dishes, and, in fact, everything that goes to equip a restaurant. A matron is in charge and she will cook and serve anything that the girls bring with them. The Company supplies tea, coffee, milk and cocoa at its own expense.

"I tell you, Helen, this afternoon gave me the

surprise of my life. I had no idea what wonders lay behind the wires of our Bell telephone."



The Handling of the Reading Directory by the Boy Scouts

The last directories were delivered by the big automobile trucks of the Reading Eagle direct from the binderies to the Church Street warehouses. Boy Scouts reported after school and were given a card bearing route number and their name. Upon presenting the card they were furnished with the route list bearing the corresponding number, together with the requisite number of directories. Each was equipped with a small express wagon and the books were quickly and carefully loaded, everything being handled without confusion. There were thirty-two boys who went out on the routes about four o'clock and all directories were delivered by nine o'clock the next morning.



A Little Christmas Spirit

UNCLE GEORGE.—Remarkable progress since I was a boy—wonderful facilities—march of science! Four-two-five-two Western, please, miss.—Punch.



THE TELEPHONE NEWS

Published the first and lifteenth of each month in the interests of The Bell Telephone Company of Pennsylvania
The Central District Telephone Company
The Delaware & Atlantic Telegraph & Telephone Co.
The Diamond State Telephone Company

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EEP the crowd smiling and you'll get the answer."

All those who remember the author of this remark at the time of the recent Pittsburgh storm trouble will please hold up their right hand. Yes, thank you, it's evident that many of you do remember him.

Splendid advice is found in these nine words, but, do you know, we're going to add, "and by smiling all the time you'll teach the corners of your mouth to turn up."

"What's the use?" perhaps one of the unpopular Glooms says.

Let the Christmas Joy reply "Without smiles our organization and our daily lives would soon turn into a monotonous humdrum performance."

If you don't agree, just experiment on being a smileless Gloom for about two minutes, but don't for the world try the experiment more than that time, for it would be a pity to have you suffer longer. And the public—our boss—would suffer too, for the desirable employee of to-day is cheerful and a smiler.

We cannot live by regular work alone! No life could be more regular than prison life—no life more unpleasant. Why? Because there are no smiles there. The human brain demands smiles. You owe it to yourself and to the world—smile and let the corners of your mouth turn up. So:

"Smile a smile;
While you smile,
Another smiles,
And soon there's miles and miles
Of smiles. And life's worth while
If you but smile."

Fifteen Years of Bell Service

AVE you ever heard of "Mother Wagamon"?

If you haven't, then you have never lived, worked or tarried for long in the state of Delaware. In another column you will find some interesting remarks written by Mrs. Belle Wagamon, Operator in Charge at Georgetown, Delaware, concerning her past and present Traffic work in the Bell service.

Her reminiscences of fifteen years' Traffic service are a record of far-reaching effort and continuous Traffic improvement which may well be read with care by all of us.

But really, "Mother Wagamon," as she is affectionately known throughout the Diamond State, has not told us of her most important work. Listen to this: Traffic Supervisor Lescure tells us that he has never received a written Traffic complaint from any of our Georgetown subscribers—a splendid record. In fact, he has never had an expression of dissatisfaction with the service, either written or verbally, from any Georgetown subscriber.

To quote Mr. Lescure, "Her operators are carefully selected and thoroughly trained and everyone connected with the Telephone Company, who has been fortunate enough to have the opportunity to work with her, has the highest regard and respect for her."

Our hats are off to you, Mrs. Wagamon, and here's hoping that every employee will take example from your good work and become more firmly dedicated to the aim of courteously pleasing and serving the public.

Two Possibilities

THERE is nobody just like you, there never was, there never will be.

There is a niche or a series of niches in the ladder of service in our system for every one of us to display his or her natural abilities. And just look out when you or I get started in one or more of these positions best suited to our abilities, for then the sparks are going to fly.

To quote from a recent paper by Mr. Crosman, "There is, in a growing business like ours, the utmost necessity for a constant reviewing, at the hands of the supervising people of the organization, of each group or unit which constitutes part of their organized forces, in order to make certain that each job is being manned by people best suited for that particular work. This is good modern practice." Illustrating this statement, Mr. Weirick

tells us, on page 13, how an adjuster was turned into a "live wire" salesman.

Then, too, there is in this issue the announcement of Mr. L. M. Dunn's appointment to the managership of the Western Electric Pittsburgh house after a splendid record in the Bell Service.

Somehow, we believe that these two cases fairly well illustrate the possibility for profitable transfers and deserved advancements not only in our own organization, but in our entire system.

Mistake-Making

By Miss Margaret A. McCarthy, Stenographer, Germantown, Phila.

ORRECT work is expected of every employee in a business, but we should not forget that anyone who has a great amount of work to do will, at times, make mistakes.

The fewer mistakes we make, however, the more valuable our services become. But there is a big mistake, so serious in its bearing upon any business that it ought not be made at any time, by anyone, and that is manifesting irritation when a fellow worker or an employer thoughtfully points out an error that we have made.

Some are glad to be told when they have made an error, so as to prevent recurrence. They also have a friendly feeling toward those who have discovered the mistake. Those people continue to improve and grow, and become more valuable to their employers. They are the kind of people who are pleasant to work with and the sort of people you like to have as your friends.

How different the other class; as soon as their mistakes are shown to them, they become irritated and sometimes angry and try to blame the error on someone else. They take it as a personal matter; are resentful and unpleasant. They begin to waste time trying to find some mistake of the person who found out theirs. They are unkind, uncomfortable to work with, and often very disagreeable, and in this way their value to their employer generally is lessened.

Perhaps we all have our likes and dislikes, but we have no right to let our personal feeling in any way interfere with our business relations. In these we should be kind and considerate and endeavor to coöperate with those with whom we associate.

One Lesson from Montreal's Fire

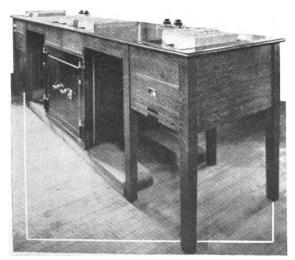
In Montreal the importance of the telephone was signalized in a striking manner early on the morning of November 5, when a "sneak current" from some high-tension line crept into the main frame of the main exchange in that city and started a fire. The blaze did not last very long, but it lasted long enough to put the main frame out of commission and paralyze the service of 13,000 subscribers.

In the transaction of business, therefore, the hands of the clock were set back twentyfive years. Messen-gers were employed by the hundred, and dashed hither and thither with oral and written messages. Cabs and automobiles were pressed into service. Telegraph lines were called upon to lend a hand, and mail carriers grew roundshouldered under the unusual burden. The streets and lobbies of business buildings immediately took on an air of extraordinary activity, and space in

the elevators was at a premium.

Despite all this, the business of the city was seriously handicapped, because no other single agency, nor all of the other agencies of communication combined, could give the service the telephone gave. It was an extraordinary catastrophe, but at the same time it was a striking lesson that most dramatically emphasized a fact that, paradoxically speaking, had been forgotten because of its very familiarity—the importance of telephone service to the business world.—New England Telephone News.

BOOKKEEPER'S DESK-OPEN READY FOR WORK.







Modern Desk Equipment

By P. C. Kramer, Division Auditor of Receipts

SCIENTIFIC accounting methods provide for securing maximum results with the minimum amount of time and expense. To obtain this result we must provide proper routines for the performance of the work and, in addition, equipment that permits of a compact and convenient arrangement of the records, thereby eliminating unnecessary motions. With this object in view, the Philadelphia Revenue Accounting Center has just installed new desk equipment, as described below.

The Philadelphia Revenue Accounting Center, pending results to be obtained from experiments that were being conducted in revenue accounting work, has until recently been using bookkeepers desks which were originally designed to meet conditions and accounting methods in effect January 1, 1902, when loose-leaf ledgers were first introduced for subscribers' accounts. These desks served the purpose for which they were intended, when the maximum load for each bookkeeper was approximately 1500 accounts, and when only two ledger binders were required to contain this number of ledger folios. Since the increased efficiency of our Bookkeeping Division made possible a load of approximately 3000 accounts per bookkeeper, four ledger binders were required. As the desks had no compartment in



THIS VIEW SHOWS THE REVENUE ACCOUNTING OF

which the ledgers could be stored when not in use, a shelf or table adjoining each desk was necessary. Therefore, in the progress of the work, the supervisors and bookkeepers were required to lift and handle, many times a day, ledgers weighing approximately thirty pounds each. The desks were unsanitary and the dust





CE BEFORE INSTALLATION OF NEW EQUIPMENT.

which accumulated could not be removed unless the desks were raised, and as no fireproof compartment was provided, our ledger records were entirely without fire protection. The small photograph shown above of the Revenue Accounting Office with this desk equipment brings out clearly the objectionable features mentioned.

THIS VIEW SHOWS THE REVENUE ACCOUNTING OFFICE WITH NEW DESK EQUIPMENT.

Since January 1, 1913, the Philadelphia city subscribers' accounts have been maintained by means of a card ledger system. This system has proved so satisfactory that desks especially designed for card ledger work have just been installed. These desks are so constructed that should further developments in loose-leaf ledgers warrant a change from the card ledger system, they could be changed with but slight expense to meet almost any requirement. Three different views of this desk are shown.

As shown in the first view, the writing surface of the desk is flat. On card ledger work this is preferable, since with the sloping top, such as is usually used for ledger work, there is a tendency for the cards to slide from the desk while the bookkeeper is posting charges and credits to the subscriber's account.

The card ledgers are filed in wooden trays which fit into a pit at each end of the desk. As each pit is designed to hold two of these trays, containing 1200 cards per tray, each desk has a capacity of 4800 accounts, any one of which is within arm's-reach of the bookkeeper and can be obtained with a minimum effort. The pits are so arranged that the top of the tray is flush with the top of the desk, above which the card extends approximately two inches. This arrangement secures greater convenience in handling

card ledgers and enables the bookkeeper more quickly to locate any particular account desired, as the telephone number is brought within a direct line of vision. The front of each

The front of each pit, as shown in the second view, is designed as a drop door. This door, when closed and locked becomes a part of the front of the desk, but when open, the card trays, which rest on rollers in the bottom of the pit, can easily be removed without lifting.

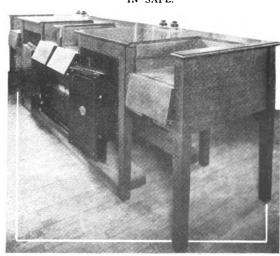
In the event of special work, requiring more working surface than is possible with the cards in position, the bookkeeper removes the card trays and places the covers over the pits, thus making the entire top of the desk available as a working surface, as shown in the third view.

These views give the appearance of one desk constructed to accommodate two bookkeepers, but in reality there are two desks, with the adjoining ends fastened together by means of concealed bolts and resting jointly on a four-inch light wall

safe, in which the ledger records are placed at night. The safe, therefore, serves as a pedestal for the desks and also affords reasonable fire protection for the ledger records without additional floor space being required.

The above view shows the arrangement of the office with the new desk equipment. The desks, being single, are arranged so that all the book-keepers face in one direction, thus making possible more efficient supervision, besides adding very materially to the appearance of the office.

BOOKKEEPER'S DESK—TRAYS REMOVED AND STORED IN SAFE.

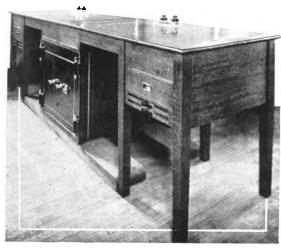






The low desks at the end of each row of bookkeepers' desks are used by the supervising force and the contract bookkeepers. As each contract bookkeeper handles the line order and contract work for approximately 12,000 accounts, distributed among four bookkeepers, any arrangement that enables him to be located near the accounts which he handles saves time otherwise lost in walking to and from the records.

Our new desk equipment has resulted in a compact arrangement of the records, a reduction of the physical exertion of the employees, an elimination of unnecessary motions, and, therefore, an increase in the efficiency of the individual.



BOOKKEEPER'S DESK-CLOSED.

Organization Changes

The Bell Telephone Company of Pennsylvania

H. W. Taylor has been advanced from Salesman to Local Manager at Lewistown, Pa.

H. Hawthorne, formerly Assistant Foreman, is now Foreman, Erie District.

Hugo Metzler has been promoted from Climber

to Loop Foreman at Bethlehem, Pa.

Frederick W. Stevens, formerly of the Sales Department at Reading, has been transferred to the Publicity Department at Philadelphia.

L. F. Schuller has been appointed Agent of the Honesdale Sub-District of the Scranton District.

C. C. Holland, a Clerk, has been advanced to Plant Engineer's Chief Clerk, Harrisburg, Pa. Mrs. Cora S. Cogan has been appointed Chief Operator and Miss Elva J. Benedict appointed Assistant Chief Operator at the Lombard Cen-

tral Office, Philadelphia. W. J. Shultz, a Salesman at Berwick, Pa., has been made Chief Clerk at Easton, Pa.

George B. Garwood has been appointed Cashier of the Mt. Holly Joint Office, reporting to the Trenton District Manager.

Walter E. Smith has been made Chief Clerk to the Trenton District Manager.

The Central District Telephone Company

Miss Lola Goodwin, who has been Chief Operator at North East, Pa., for several years, has been made Local Agent there.

Fred. S. Burtoft, formerly a Clerk, is now Field Engineer, Wheeling District.

A. B. Long, a former Combination Man, has been made a Central Office Man at Marietta,

Mont Stutler has been advanced from Combination Man to Central Office Man at Clarksburg, W. Va.

The Western Union Telegraph Company

Mr. E. P. Totman has been appointed District Plant Superintendent of the Western Union Telegraph Company, Philadelphia.

Mr. R. T. Meigs, has been promoted to the office of the General Superintendent of Plant,

New York City.

"A man's got to lose more than money to be 'broke."

For their work at the switchboard in Japan operators receive a salary of twenty cents a day.

Build up mental motive power and then utilize it.

The Royal Society of England has awarded the Hughes medal to Alexander Graham Bell for his part in the invention of the telephone.

Dream all you want, only stay awake while dreaming.

Beats of the Paris Observatory clocks, transmitted by wireless, were heard at the United States Naval Observatory after three weeks of experiments.

Blessed are the happiness makers! Blessed are they that remove friction, that make the course of life smooth and the intercourse of men gentle!-Henry Ward Beecher.

Telephone operators at Beton, Texas, at daybreak on December 2 saved 100 lives by refusing to leave their switchboard until they had warned all families possible of an onrushing thirty-foot flood-wave in Nolan Creek.

Scores and hundreds of men can plan, and plan wisely; at almost any cross-roads general store you can hear in conversation around the store as good plans as ever moved the world to admiration. But execution-that's the rub! It is so much easier to tell what they ought to do than it is to get busy and do it.

Broken mouthpieces are being replaced by mail by the New York Telephone Company and a corrugated cardboard wrapper is used. The saving in employees' time is considerable. Printed directions accompany the package.

Don't count a day wasted if you have helped somebody else beside yourself.

Declaring that unnecessary, lengthy conversations over telephones on party lines were responsible for the unsatisfactory service rendered by the local telephone exchange, the Board of Trade of Providence, R. I., passed a resolution setting forth the complaints received by the subcommittee and requesting that a time limit be set on conversations. Five minutes is named as the length of time that should be allowed, this limit not to include the time required for making connections.

The person who goes around looking for a soft place has got one already under his hat.

"B. W. Trafford was the Brickley of the gridiron nearly a generation ago. While Brickley in the Harvard-Yale game kicked four goals from drop-kicks and the fifth from placement, Trafford booted five drop-kicks over the bar in the Harvard-Cornell game on November 1, 1890," states the Philadelphia Bulletin. Mr. Trafford will be remembered as the former General Contract Agent of our Companies.

New Western Electric Manager

Mr. L. M. Dunn, formerly Chief Storekeeper of the Pittsburgh House of the Western Electric Company, has been recently appointed Manager of that company's Pittsburgh branch.

Mr. Dunn entered the service of the Western Electric Company on March 1, 1910, when after twenty-three years of service he resigned from the employ of the old "C. D. & P."

Mr. Dunn is Vice-President of the Telephone Society of Pittsburgh and a member of the Transposition Club.

The Observer Tells About the Voice That Carries Christmas Cheer

'VE just had the pleasure of inspecting a central office," said a lady to me the other "It was a most enjoyable experience-like combining the delight of traveling to a new country and that of seeing the inside workings of a marvel of the watchmaker's Why, do you know, it made such an impression upon me that I went home and dreamed about it. A perfectly wonderful dream," she continued, smiling. "I'll tell you about it if you wish."

I begged her to do so, and she flushed and her eyes took on a brightly reminiscent look as she began a story that deserves your perusal, especially as it teems with the Yuletide spirit.

"You know when I paid my visit the Chief Operator, adjusting a receiver upon my head, permitted me to listen to the girls repeating and passing calls. It was mighty interesting and struck me forcibly. I was dismayed at the thought that I had ever spoken a cross word to these young women who worked so deftly and spoke so softly. Talk of well modulated, beautiful voices! I really believe that the Chief Operator I met has a voice as wonderful as any actress I have ever heard, not even excepting Miss Marlowe, who is credited with such a wonderful speaking voice. This little Chief Operator, who figured largely in my dream and who is such a charming little woman with wavy, light brown hair and soft Irish blue eyes, has a voice which a poet might liken to the rippling ring of silver or the musical murmur of a little brook as it rushes across the rocks.

"No, I'm not getting away from my dream, for it was full of this operator's voice—'the voice with the smile,' I think the telephone people call ic. I should name it the voice which rings with the Christmas spirit of helpful, loving service.

60

In my dream I was back in the central office. wearing a magic head receiver which endowed me with the power to see and to hear what was happening around me without being seen or heard. Don't you remember the 'invisible' cloak of our fairy-story days?

"I saw a man whom I know well, for he is my husband,-good at heart, but a trifle pompous and imperious, especially when he wears business manners. I thought it was the day before Christmas and he was at the office in an especially energetic and not very happy frame of mind, en-deavoring to clear the decks for the holiday vaca-

"I saw him grab his telephone, lift the receiver with a jerk, and, after a short instant, pound upon the hook. The crash in my ear was deafening. Then the operator came on the line, Strangely, it was the Chief Operator's voice I

heard. I suppose she said, 'Number, please,' as usual, but in my dream the tone of the voice was so sweet and vibrant that I thought I heard also a faint whisper which sounded like, 'It's Christmas-time.' It wasn't exactly a sound, just a happy, jubilant note in the voice which made one feel rather than hear the Yuletide greeting; a sort of soft accompaniment, as the vibrating notes of the harp are faintly but sweetly heard among the voices of a hundred other instruments of a great orchestra.

"My husband was impatient; I could see it by his face. He started to say in a brusque way, 'I want Hiland 746, quick'; but he too had heard the happy note in the operator's voice, and his manner altered towards the end and he added a 'please.' I heard the operator pass the number, and this time the Christmas greeting tone was quickly caught up by the 'B' operator's voice as she assigned a trunk.

"Next I saw a young man in my husband's office. He was very red in the face and I caught the gist of the conversation as my husband scolded about a costly mistake, punctuating his sentences with unusually strong language for him, and emphasizing his words by pounding upon the desk.

"I heard the young man venture, 'But we could telephone and correct it, sir. It's not too late.' I saw my husband answer with a shrug of disgust. But finally he reached for his telephone with a look on his face of towering rage.

"I waited breathlessly and in an instant I heard again the soft yet strong 'Number, please' which seemed to say 'Peace on earth.' What a wonderful change came into my husband's face, and his voice, far from giving a trace of his feeling of a moment before, was now quite gracious.

"But in a moment his scowl returned. He had heard the busy signal, and down came the receiver. For a moment he looked at his clerk undecidedly. I could tell his thoughts and they boded no good, but he only said, 'That will do, Winters,' and picked up a letter.

"A moment later I heard the ringing of the telephone bell and, as he replied, I heard our operator say, 'Do you want Grant 314 now?' and her joyous voice seemed to say, 'Peace and good will.' A smile of pleasure illumined my husband's face and it was a different man who answered, 'Yes indeed, operator, thank you very much.' He had caught the Christmas spirit now and when his man answered he talked to him in a happy, good-humored tone, explaining the error in the young man's quotation.

"'Oh, that's all right. We understand perfectly,' was the reply. 'We are glad you were so frank. The price is quite satisfactory. Best wishes for a jolly Christmas.'

"Then I saw my husband touch a buzzer and his clerk entered the office. 'I want to apologize to you, Winters,' said he. 'Perhaps it was my fault that you made the error in that quotation. Anyway, let's forget it and I hope you will have most happy Christmas.'

"Again the telephone bell rang and, when my usband answered, I heard quite distinctly what was the burden of the operator's gladsome message. It was "Pages or parties of the same of the

sage. It was, 'Peace on earth and good will.'
"That's how my dream ended," said the lady with a smile. "And, by the way, I wish you a very merry Christmas."

The Horner

Telephone Exhibits at the Panama-Pacific Exposition

A building is to be erected within the Palace of Liberal Arts by the American Telephone & Telegraph Company at the Panama-Pacific International Exposition, to be held in San Francisco in 1915. The exhibit which will be placed in this building will deal with the various phases of the telephone industry. The original form of telephone instruments will be shown and their evolution into the instrument of the present day will be traced. The showing of many of the processes of the manufacture of telephone equipment will also be an interesting section of the exhibit.

Various details of telephone work will be displayed, including views of exchanges, operators' training schools, luncheon and recreation rooms, the laying and slicing of underground and submarine cable, battery and power plants in operation, and illustrations of simultaneous telephony and telegraphy over the same wires. Another feature will be a series of lectures, illustrated by moving pictures and other views, which will deal with many of the interesting things connected with the world-wide service of telephony and telegraphy.



Germantown District

The other evening a subscriber called the Germantown Information Clerk, Miss Rita A. Finn, and asked what she should do when bothered by tramps. The subscriber stated that as she was alone she was afraid to refuse these tramps who had been coming to her door for money several nights. Miss Finn advised her to call the police station and have her house watched by a policeman. The very thankful subscriber asked to be connected with the police department; which tends to show that the operators are looked to for advice as well as information.

KING.

1230 Arch, Cashiers' Office

In recording unusual occurrences special mention should be made of a coincidence quite recent in the Cashier's Department. In combining the remittances of the Baring and Dickinson Districts and separating the checks by banks and trust companies, the total of each was identical. The mail was quite heavy and it is safe to assume this may never happen again.

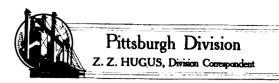
owens.

1230 Arch, Business Office

One hundred and forty six applications for positions as clerks and collectors alone were received at the main office during the month of November.

Folders entitled "An Invitation to Every Telephone User" are being distributed by salesmen, inviting inspection of nine of the Philadelphia central offices. Guides have been appointed to show visitors through the exchanges every weekday from 9 A.M. to 9 P.M.

BRADFORD.



Pittsburgh District

Paul R. Peecook, a baggage checkman employed at the East Liberty Station, some time ago captured a pay station thief after a hard struggle.

As one result Plant Superintendent Stryker wrote to the Superintendent of the Pittsburgh Division of the Pennsylvania Railroad commending Peecook for the brave and zealous manner in which he protected the property of our Company as well as that of the railroad.

Mr. F. R. Dunning,
Manager, Bell Telephone Co.,
Morgantown, West Virginia

Morgantown, West Virginia.

Dear Mr. Dunning:—I had occasion yesterday to call by Long Distance Hon. Howard E. Williams, State Commissioner of Agriculture, at Charleston. As you know, I have been cooperating with him in accumulating material for an agricultural and industrial exhibit for West Virginia in the big United States Land Show at Chicago which will be opened next week. It was also necessary to reach quickly Mr. R. M. Dalzell, a special agent of Mr. Williams, on the same subject at some point in the Potomac Valley. Finding Mr. Williams out of reach at Charleston, I attempted to get him by telegraph at another point, but failed. In the meantime your Long Distance operators pursued both of them with great diligence, finally locating Mr. Dalzell in Morgan County and Mr. Williams in an out-of-theway place in Greenbrier County. These operators were exceedingly patient and zealous and I wish to commend them for their most polite and efficient service.

Very truly yours,

J. H. Stewart.

The above letter from the Agricultural Agent of the Baltimore & Ohio Railroad refers to service rendered by Miss Earle Newbraugh and Miss Pearl Gray.



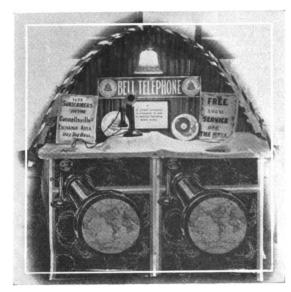
Proof of That Bear Story

Maybe you read "Modern Bear Hunting" in the last issue. Just the other day Local Manager E. J. Thompson at Clarksburg, W. Va., sent the News this picture of a 300-pound black bear that was trapped by the use of the telephone. The bear results prove the bear facts.



The "Hiland" joint telephone-telegraph office, at Centre and Highland Avenues, Pittsburgh, was recently called upon to transfer a sum of \$7100 to Detroit, Mich.

Unicatowa District



Above is a picture of the Bell booth at the Industrial Fair, held in the State Armory, Connellsville, Pa. The color used throughout was nellsville, Pa. and white. About thirty merchants of Connellsville had displays at the fair and our service was greatly appreciated by them and by the public. Two thousand persons visited the fair during the week.

The Nemacolin Club of Uniontown recently gave its third annual Minstrel, and the Bell Telephone, as usual, played a leading part. When the chorus gave the number, "Hello, Sweetheart. will you marry me?" each member held a Bell telephone, in the transmitter of which was concealed a small incandescent lamp. The stage was darkened and the lifting of the telephone receiver from its hook illumined the faces of the actors. The telephones were of the old No. 10 type and were procured from the Western Electric Company. The act was a big hit and received much favorable mention in all of Uniontown's four papers. The Nemacolin Club has had at least one Bell Telephone Company employee as a member the past five years, and at the present time there are four.

The lunch room recently added to the Uniontown central office was the cause of a peculiar request at the Cashier's Office several days ago. A very hungry-looking, poorly dressed man came loitering through the hall and, smelling the coffee and eatables cooking, appeared at the office and asked the Assistant Cashier for a lunch.

The Kaw Milling Company recently ran a series of newspaper advertisements in Morgantown, W. Va., the main feature of which was the question, "Why is a crow?" This peculiar advertisement campaign closed with the following announcement:

The answer to this question will be mailed this afternoon in plain envelopes to 100 residence addresses having Bell Telephones. Names scattered through the alphabet. Call your friends and get the answer.

As a result the local exchange had a busy time and the information operator answered an average of 150 inquiries every day for a week.

F. C. Graham, salesman at Uniontown, took a contract for a telephone to be installed in a home where there was sickness. While the contract

was being signed at noon, the doctors decided that an operation on the patient was necessary, and as the family lived some distance from town, it was requested that a hurried installation be made. In less than two hours the instrument had been placed and the operation performed, the telephone making it possible to get in touch with the druggist, hospital, etc., and thus aided in saving the patient's life.

During the recent snowstorm the Morgantown Wire Chief sent two linemen out on trouble in the neighborhood of Mt. Morris, and he gave them sufficient expense money for a period of two days. On account of more trouble in the same territory, it was necessary to keep them out three days. As they were out of money, and as they had to remain overnight, they stopped at a farmhouse and explained to the housekeeper that they were telephone men who had run out ot expense money and that their employers would send her a check as soon as they returned to the city. She refused to keep them under any circumstances. As they turned to leave, she noticed the badge on one of the men, and apologized, saying, "Oh, I see you are Bell Telephone men. Certainly you can stay.'

MISS HEPPLEWHITE.

Wheeling District

From the Department of Public Safety, East Liverpool, Ohio, which has installed a private branch exchange for the fire department, comes the following letter:

'This is just to congratulate you on the successful operation of your private telephone ex-

change installed in our fire department. It is so arranged that we can call any one or all three of our fire stations, also the fire chief's office or his residence. This is installed with two trunk lines, one for business and the other for fire purposes alone, thereby insuring the receipt of a fire alarm by telephone promptly. It also facilitates sending out alarms to outside fire stations, giving them the exact location of a fire. By this method all stations know where the other departments go. Under the the old method all stations did not know the exact location of a fire. The telephone is an important addition to the fire department

in receiving and sending alarms promptly. For instance, last year, out of 115 fire alarms, 86 were received by telephone, so you can see just how important it is to us. I wish to thank you for your good service, the first-class installation and your hearty cooperation in maintaining this system in its high state of efficiency. Wishing you the best of success, I am,

Yours respectfully, A. S. A., Chief Fire Department, MISS DIEHL.

What's in a Name?

"Who shall I say is asking for him?" inquired Central of the man in the booth. "Mr. O'Cohen."

"Mr. Who?" "O'Cohen."

"Wait a minute—the wires are crossed."

The Telephone Society of Pittsburgh

At the meeting held December 6 in the Jenkins Arcade Auditorium, the subject, "Service Complaints," was discussed. There were three main speakers and afterwards an informal discussion, and the meeting was enjoyable as well as in-

The subject was introduced by F. T. Ewing, Traffic Superintendent of the Pittsburgh Division who explained in detail the way Traffic complaints should be handled.

S. E. Gill, Traffic Superintendent of the Pittsburgh Elsewhere Division, followed Mr. Ewing He referred especially to the attitude we should assume in adjusting complaints. Mr. Gill explained how the patrons' opinion of the Company in its business policy was significant in handling complaints and the importance of every employee doing his utmost to convince the public of the fairness of our policies.

The Plant side of the subject was handled by H. Hamilton, Supervisor of Maintenance of the Pittsburgh District. He spoke of the efforts of his organization to keep the plant in best repair and some of the difficulties under which they worked. The importance of good installation job in cutting maintenance costs for substations was emphasized.

After cigars had been distributed, a general discussion of the subject at hand was opened, and in response to President Boeggeman's call the following gave short talks: Messrs. Stryker, Gordon, Badger, Collette, Coates, Lehmann and Moore.



Cashier Henry Goes Hunting

J. A. Henry, Jr., of the Harrisburg Division Cashier's Office, spent ten days recently at the H. E. Kepler Hunting Club's camp located at the head of Dry Hollow in the real deer country of Clinton County.

With four inches of snow on the ground, the first day's hunt was started bright and early Mr. Henry, who is standing at the extreme right of the picture, was on the "watch" for the first "drive." While he has had considerable experience at "watching" during former hunts, Mr. Henry for the first time got a real "try" at a nice four-prong buck weighing 150 pounds, which is shown on the right of the picture.

Taking deliberate aim with his 30 Remington rifle, he was "easy game" for Mr. Henry at distance of fifty yards.

December 15, 13% Digitized by GOOGLE



This adjustment of the Scranton force has

done two things: changed the weekly salary of

an employee from a collection expense to a pro-

ducing expense and discovered right in our midst

Isn't there food for thought here for all of us?

one of the very best salesmen in the division.





Reading District

At a service in one of the Lebanon churches the minister remarked that he thought we were becoming a nation of thankless people and not as courteous as we should be. A member took exception to the clergyman's remark by saying that he had not found this to be the case with the majority of local business people he knew; for he stated that he had been engaged in doing some repair work at the Business Office of The Bell Telephone Company for about two weeks. During that time, the employees would daily call subscribers for their remittances and the conversations had invariably ended with "Thank you."



Paper Cup

STANDING LEFT TO RIGHT:
J. I. YOUNG, W. B. WALZER, L.
H. RADER, C. E. EDLER, S. G.
SMEAD, A. T. KELLY, G. C.
YOUNG, R. C. STINE, D.
KURTZ, R. I. TUNE, J. W.
EDLER, W. P. RAYMOND, L.
GIBSON, F. T. LESSER, L. N.
WALZER, C. KERCHNER.
SEATED LEFT TO RIGHT:
R. O. DEMMING, JOHN BAILEY,
K. C. RAUP, H. P. TROXELL,
J. S. TILL, C. R. SHELLY, J.
L. MARLEY.

Williamsport District

A Wellsboro lady received a telegram from her son stating that he was ill and must have some money. She read the message over carefully and then remarked, "He must be very ill, for that is not his writing."

The Right Church but the Wrong Pew

Turning an Adjuster into a Salesman

By J. C. Weirick, Harrisburg, Pa.

Up to several months ago two adjusters had been employed in the Scranton territory. A careful study and analysis of the duties of the adjusters in connection with a rearrangement of the office work showed that the adjusting work could be performed by one employee, leaving the second employee available for other duties. What to do with the second employee gave the Local Manager, for a time, considerable concern. The only thing available was to put him on the selling force. It was feared, however, that possibly he was not fitted for this kind of work and that it would not be congenial to him. He was asked if he would like to try it. He said he would and lost no time in getting to work. The employee was Mr. F. L. Holly.

When the selling costs for the Scranton salesmen were computed for the first week in which Mr. Holly was on the selling force, they showed that he led the entire force in low costs for securing business. The second week showed him among the leaders, and since that time he has headed the list more frequently than any of the other salesmen. Mr. Holly appears to know just where to go to secure business. He had been an adjuster so long that he appears to know where a telephone is needed and procures an application for it.

A Safety Meal

A testimonial dinner was given Mr. John Bailey, recently appointed Superintendent of Safety, by employees of the Williamsport District on November 24 at the Henry House, Williamsport, Pa.

The dining room was cleverly decorated, the principal decoration being an illuminated banner bearing the inscription "SAFETY FIRST."

Around the table were men who had been associated with Mr. Bailey in telephone work for many years, including some of the oldest employees in the Harrisburg Division; notably among these were H. P. Troxell, who began his telephone experience in 1878. John Marley in 1884, F. T. Lesser in 1890 and D. Kurtz in 1892.

After the dinner short talks were given by each of the employees present, the stories and reminiscences of the older employees being greatly

enjoyed. At the conclusion Mr. Bailey was presented with a gold watch, the gift of the employees of the Altoona and Williamsport Districts. Mr. Bailey then gave an interesting talk, relating some of his earlier telephone experiences and outlining briefly the work in which he is to engage.

The telephone is a great invention. It enables a woman living in the country to find out what her sister twenty miles away had for breakfast.

—Nyack Star.

Construction Gang Makes Timely Rescue

While a gang of our Scranton construction force was working on the trunk lines between Ulster and Athens, in Bradford County, in the northern tier of the Wilkes-Barre District, the

boys gave great service and first aid in an automobile accident, which, without their aid, would probably have resulted fatally.

An auto truck was returning to Waverly. N. Y., with a load of empty barrels, and while in the mountains, on a very lonesome stretch of road, the engine "stalled." The driver, in getting out of the truck, probably reversed his engine in some way, and in attempting to crank it the jar of the engine started the truck down the mountain.

The driver, W. M. Deyo, in attempting to get to the stearing gear, had to take the low side

of the road, and in so doing stumbled and fell. The rear wheels of the truck at the time ran up the high side of the bank and the truck tipped over, pinning him fast beneath the engine.

Fortunately our men were working near-by and in a position to see the accident. They immediately gave the alarm, and by an almost superhuman effort four of our five men, who were at hand, succeeded in raising the heavy truck high enough for the fifth man to remove the imprisoned driver from his perilous position, and the Plant men administered first aid to the injured man until taken care of by a physician.

As the accident occurred in an unsettled part of the country, one of the boys took a horse out of their team and made a "Paul Revere" ride for a doctor to the nearest town, which was two miles away. The people who saw the speeding horse and rider seemed to realize that something was wrong and they gave horse and rider the right of way, and in less than half an hour the gang had the doctor on the scene. The injured driver was then taken to the hospital at Sayre, Pa., where it was found that his side was crushed, two ribs being broken, with bad lacerations of face and arms.

While in the hospital the injured man, who has now fully recovered, wrote a grateful letter to the gang expressing his thanks and gratitude for the timely services rendered him.



CONSTRUCTION GANGS UNDER FOREMAN E. ROAN AND C. CHROMAS, SHOWING THE RESCUERS: (1) S. MORRISON, (2) B. PENNMAN, (8) E. ROAN, (4) C. FOX.

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Reminiscences

By Mrs. Belle Wagamon, Operator in Charge, Georgetown, Del.

When I took charge of the Georgetown (Del.) telephone office, fifteen years ago, I little thought that after so many years I would still be busy at the switchboard and at the desk, looking after the various interests that arrest the attention of an operator who has a twofold interest and duty;



MRS. BELLE WAGAMON

namely, that of serving the public as well as the interests of the Company. Previous to that time the Company's interest had ended with the giving of service and the collecting of the annual rentals, as there was no time or overtime charged and it was no unusual thing for parties to hold the line indefinitely, thus feeling that they were monarch of all they surveyed, with none daring to molest or make them afraid.

In 1898, The Diamond State Telephone Company took charge and many radical changes were made under the management of Mr. Wm. H. Baker, of Dover, Del., who introduced the ticket system and other more technical forms of oper-This was displeasing to the public, of course, as they thought their rights were taken away and much feeling and expressions of discontent were passed along the lines. The poor operator received her share of the scolding because the public could not reach the officials and they had to give vent to their feelings to the first one in sight, and so we poured oil on the troubled waters as best we could and endeavored to restore peace.

Under this management the operator in charge made out all bills, collected all money, paid all current expenses, and sent a quarterly report to headquarters, together with all money in hand after all expenses were deducted.

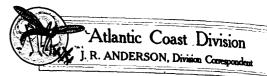
In the meantime we were going forward and 1.ot backward. And when, in 1908, The Bell Telephone Company of Pennsylvania established its close association with The Diamond State Telephone Company, the time was propitious for an upward movement along all lines and we felt that we were at last on a solid foundation. With

this change came new customs, new routines (in fact, a complete evolution), until with the passing changes only two remain who have earnestly worked and noted the many changes which a rapidly growing business demanded.

The writer of these lines and the Local Manager, Mr. E. D. Prince of Dover, Del., are the two who have watched the rapid growth of The Diamond State Telephone Company from its infancy. The "hello" day is past and in its place we hear "Number, please" and "Thank you" two very important factors in making the public feel that it is not only a duty to render cheerful, courteous service, but a pleasure as well.

Not long since, our Traffic Supervisor, Mr. M. E. Lescure, who is educating us into the more progressive methods, sent a letter to all concerned advising us to make a careful study of complaints and how to consider them. An operator along the line asked me to explain the meaning of the letter and my reply was that our Traffic Supervisor wants us to give the public such prompt, willing and courteous attention that our patrons will have very little to complain about. advice to every employee of the Telephone Company: be accommodating and courteous at all times, but above all things be courteous; it will win friends for yourself and it will win friends for the Company which you so loyally represent.

My subject, however, is exhaustless, but I want to say, in conclusion, that THE TELEPHONE NEWS is a strong factor in educating us along lines of greater efficiency and is an inspiration to all who read it. I know we are all busy operators, but take time to read THE TELEPHONE News and it will help us to give to our patrons cheerful, willing service which it is their right to receive.



The totaling of the additional revenue resulting from the suggestions of the Plant employees of the Eastern Division during October places Trenton in the lead with \$546 additional revenue. This city was put in first place by the excellent work of T. H. Smith and W. Burroughs, whose suggestions resulted in \$270 and \$162 added returns respectively. H. E. Hack also aided the New Jersey capital. Jenkintown with \$318 and Bridgeton with \$252 finished second and third for the month. Wilmington and Norristown also had totals that placed them among the leaders. Some of the best results were secured from suggestions furnished by S. H. Meyers, T. Hynson, I. W. Speakman, F. B. Payne, J. V. Donahue and R. Brownholtz.

West Chester District

A Coatesville (Pa.) physician called our Chief Operator at 3:13 P.M. on November 19 and stated that a specialist was leaving Philadelphia on the 3:20 train in connection with a serious case of illness in town, and that he must talk with him before the train left. After getting a description and other information, our operator at the public booths in Broad Street Station was notified, who in turn sent a messenger through the train calling out the doctor's name. The doctor was found on the train and talked to the Coatesville party and still had five minutes to catch his train. The Coatesville subscriber said, "That's what I call 'service extraordinary."

Plan "A" Rural Telephone System Helps Raise Strawberries

Although, technically speaking, a private branch exchange contract was not secured, yet the introduction of a Plan "A" rural telephone system o., the farm of Granville W. Leeds produces in effect the same conveniences as to distribution of stations and intercommunication, at reasonable cost to the subscriber, as are obtained through a strictly private branch exchange system. It indeed takes an up-to-date farm to go into the use of the telephone on such a basis, and

the Leeds farm near Rancocas, N. J., is one of the most progressive in Burlington County.

Oscar Ewan, our Mt. Holly salesman, recently closed with Mr. Leeds a Plan "A" rural contract consisting of seven stations, which are not only located in the residence and tenant houses on the farm, but at the pumping station, a part of the irrigation plant, in the packing house, berry house,

Besides the new telephone equipment this farm is also upto-date from the standpoint of irrigation. The picture shows a portion of the ten acres of strawberry patches and twenty acres of orchard irrigated by means of an underground system. This irrigation system has been constructed at great expense under the supervision of the engineers of the United States Department of Agriculture, and results are being obtained on this farm which are apt to have an important bearing upon future agricultural methods of that part of the country.



A GLIMPSE OF THE UP-TO-DATE LEEDS FARM NEAR RANCOCAS, N. J.

Our Messenger Service

By F. R. Kirkland, Chief Pay Station Inspector, Philadelphia, Pa.

HERE is no doubt that the messenger service can be greatly improved, partly by more careful supervision, and partly by better team-work from the boys, but it can also be much benefited by cooperation from the field at large. Some of us heard Mr. Moody tell us "What We Want in the Plant Department" at a recent meeting of the Philadelphia Telephone Society, and there are certain essential "wants' to make the messenger service truly efficient.

First and foremost, legible and complete addresses, stating name, address and department; secondly, putting correspondence in envelopes instead of attached by means of gem clips, and thrown in outgoing baskets with sender's name crossed out and another name substituted. The direct result of this is that the sheet becomes detached and the remainder goes to and fro, back and forth, from one office to another, seeking its proper destination. Thirdly, care can be taken that outgoing mail is not placed in the incoming basket, and that the incoming basket is in its regular place. Also mail can be addressed more extensively to the chief clerk of an office, rather than to many persons whose names are possibly not familiar to the messengers. I am also certain that there could be more economy in stationery were large carrying envelopes used, but in order to make this practicable care has to be taken in crossing out the last name. At present two and three small en-

velopes are being sent to different clerks in the same office where one large envelope could take care of them all. However, I was not asked to write a disquisition on how unjustly the messenger service is estimated and what marvelous young paragons even our youngest members are.

Good messengers like everything else are hard to get, and this is best typified by saying that on an average only one applicant out of eight is accepted. It is very difficult to size up a good messenger, for the most intelligent-looking frequently proves the least efficient. Most of them have just left school, consequently have no references except an unprejudiced mother. They all are sure they would rather work for The Bell Telephone Company of Pennsylvania than anyone else, and the majority want to help support their families, although the families frequently turn out to be quite affluent and have prospered for some time without their support. In short. the boys want to leave school and make work their excuse; however, there is an optimistic side to the story, they are kept out of trouble and are started on a career.

In the last year and a half I know of only one good boy who left the Company to take another position, and there is only one boy on the regular messenger force at present who has been with us over two months; the point I want to make is that every messenger on the force six months ago has been promoted to some more exalted position, and there are still other positions waiting. Re-

cently the Commercial Department has created a new position-junior clerk-who takes care of the filing and memoranda. When passing through 1230 Arch Street, the other day, I was most gratified to see five of the old messengers working there as clerks.

There are six so-called trips in the city. Some are made seven times a day, others twice, but every trip is worked out on a schedule, and the messenger, in order to retain his trip, must make good time. Whenever a messenger reaches a certain point he calls up the head messenger and reports his arrival; if he is late or, as often happens, is detained by line orders not being ready or a letter not quite finished, the head messenger has to help him make up this time lost



EVERY MORNING THESE FLEET-FOOTED AND SHOE-CLAD MERCURIES PASS UNIFORM INSPECTION.

either by allowing him to ride or sending an emergency messenger to assist him on the remainder of the trip. It is for such reasons that you of the Traffic and other departments cannot always have a messenger immediately upon request to deliver a "few" directories!

When the messenger reaches the main distributing point, the fifth floor of Seventeenth and Filbert Streets, all the mail not delivered en route is carefully sorted by the mail clerk into the proper bins. After this the mail for each building is bundled together by means of elastic bands and put in a large mail bag, when the boy starts on his journey (and you have surely seen a telegraph messenger leaning up against a lamp-post reading a "Nick Carter"); but I hope you have never seen any of our boys, or if you have, they have been trying to decipher an address.

Every morning these fleet-footed and shoe-clad Mercuries are compelled to pass uniform inspection, and if the head messenger does not feel that a particular boy arose sufficiently early to properly finish his morning ablutions, he is "demoted" to the awkward squad and sent downstairs. We are expecting many criticisms as to uniforms in the next few weeks, but please remember that a new boy may have to have clothes altered or made to fit him, and so has to wear a makeshift uniform temporarily!

During the winter months a winter overcoat having brass buttons with a bell embossed on them is issued to each boy. Many of you have criticised the caps, and I am glad to say that when the summer uniforms appear there will be a different style for your approval.

It is interesting to know that although at times the messenger service seems slow, it is infinitely quicker than the United States Mail would be and also more sure. It seems only fair to say for the boys that during the last year and a half I have heard of only one letter being actually lost, and it was addressed incorrectly. Yet before the era of the Parcel Post the arrival of tickets from the outlying districts was extremely problematical.

There are four distinct types of messengers, and although I have only mentioned the messengers who carry mail, the others are equally important and at some time or other have or will

have to perform this function. When a mail messenger is transferred to another department or promoted to rank of pay station attendant, one of the other classes of messengers takes his place.

The central office messenger is generally a great favorite, and I often wonder what his mother does with him at home, after a day of being spoiled and petted by the girls in the central office. His chief duty is to make himself useful in any way he can by getting lunches, putting the chairs in order after four o'clock in the central office, placing them in position for the day's work in the morning, and by opening and shutting the windows. These boys also deliver mail around the building.

Then there are the pay station messengers, who are apt to be forgotten if they do their duty, and get into very serious trouble if they do not. The running of a big attended public station like Broad Street or the new station at the Reading Terminal probably depends as much upon its

messenger as upon its Supervisor. For no matter how much on the job a Supervisor may be, if the messenger fails to be polite to a patron, that patron will receive a pretty poor impression of

Finally there is the office messenger, concerning whose duties I know little about. It is quite a common occurrence now to have a man call me up and say, "Can you let me have a good boy around the office? I am making John a clerk. And the messenger mail service has to surrender one of its best boys, the emergency boy given his job, and a pay station messenger taken up into the office and a new boy engaged for one of the pay stations or some other place.

Ringing a Christmas "Belle"

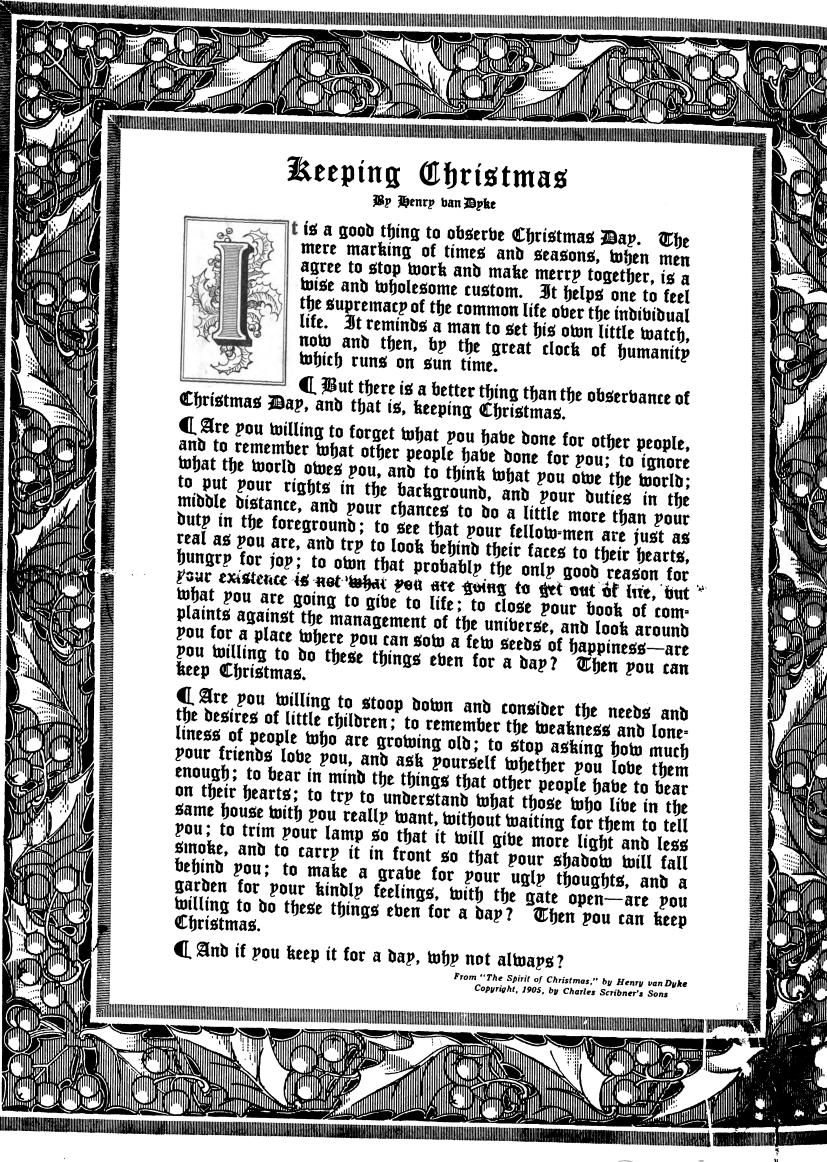
"Tommy," said his elder sister severely, "you had no business to come into the parlor when Mr. Lovett was calling on me.'

"That's all right, sis," answered Tommy. "I could see that you were only playing telephone. He was ringing you up-oh, you needn't hide your left hand behind you—but he had his lips entirely too close to the receiver."

Father: "Why are you spanking Willie? Be-

cause he swallowed the nickel?"

Ma: "Yes, I am. He could just as well have swallowed a telephone slug and saved the nickel."



The Importance of Prompt Medical Advice and Treatment in the Presence of Disease and Injury

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee

Reference has been made in preceding articles to the need of prompt medical advice and treatment in the presence of disease and injury; unfortunately, the importance of this is but little appreciated, and it is necessary that special reference should be made to it for, in the light of our present knowledge of the prevention and treatment of disease, the most successful results may be obtained if proper means are employed. On the other hand it would be difficult to overestimate the loss of life and the number who are permanently invalided or crippled through neglect in this direction. The latter is largely the result of what may be termed home treatment, for it is very generally believed that the so-called simple affections may be cared for without the aid of a physician. The danger of this practice lies primarily in the fact that those who are not physicians are not competent to decide when impaired physical conditions are simple and practically devoid of danger and what symptoms may be forerunners of some serious affection. Cases of this kind are constantly occurring; for instance, persons having appendicitis are not infrequently treated at home for indigestion or for some alleged simple stomach or bowel trouble and the necessity for prompt medical attention is not recognized until it is too late to render aid to the patient. Sore throat among children is often believed by mothers to be ome unimportant affection, probabl the result of a cold, when the truth is that diphtheria is present in a mild fant, out still infectious, and the

disease in this way is many times transmitted to others and sometimes with a fatal result. This also frequently occurs in connection with scarlet fever and measles. Mild or unrecognized cases of smallpox are often mistaken for some simple skin eruption or so-called stomach rash, and treated with domestic remedies, and through exposure in this way a large section of the country may become affected. These are not occasional but common occurrences, particularly in connection with tuberculosis, for a large percentage of these cases are treated at home usually as common colds and the disease is often far advanced before its true nature is recognized. This not only seriously interferes with the recovery of the patient but for want of proper precaution infection may be transmitted to others. The public is yet to know the frequency with which some of the most dangerous diseases occur in a mild or unrecognized form.

Home Treatment

In some sections of the country it is difficult or practically impossible to secure medical advice; besides, even in built up communities accidents may occur which demand instant relief, and it is therefore very much to be desired that everyone should, so far as possible, become familiar with various simple and practical means by which emergencies may be dealt with until the arrival of a physician, for through this aid many lives have been saved; however, this deals rather with emer-

gencies and is intended to render such help as may be available only until proper medical care can be obtained.

It is not expected that the many simple aches and pains and trivial injuries which commonly affect us and which are of brief duration shall require the attention of a physician, but home treatment, which is so general in this country, is not restricted to apparently simple conditions but includes the continued use of domestic remedies in cases where even laymen should be able to detect evidence of serious maladies, particularly where fever is present or where well marked or acute symptoms are referred to the head, chest or abdomen.

Home treatment is employed largely for economical reasons although as a matter of fact it is not really a saving, for oftentimes serious results follow this practice, and in this way a far greater expense is involved than if prompt medical care had been obtained.

Dangerous Nostrums

Curiously enough a person will promptly consult a lawyer if some simple legal question is involved or will quickly send for a veterinary surgeon if a valuable animal is sick, but he will at the same time prescribe for his children or other members of the family without the least concern as to the result. This practice is aided and abetted by charlatans and manufacturers of patent medicine who, with

no scientific knowledge of the subject, prepare and offer for sale innumerable nostrums warranted to cure every ill. It is hardly necessary to state that almost every home contains some of them, particularly headache powders or tablets. Those who use the latter know nothing of their composition and danger, for they are composed chiefly of coal tar products and are extremely depressing to the heart. The wealth amassed by the manufacturers of these articles is evidence of the credulity of the public. The more serious the disease the more numerous are the remedies offered for its treatment. This is best illustrated by the many consumption cures which are offered for sale and which are not only absolutely worthless but the time which is lost through their use often robs the patient of the chance of recovery which would be assured him if proper treatment was employed. It may be very truthfully said that a person who treats himself employs a poor physician and usually suffers in consequence.

Today there are many dispensaries and various other means of securing medical advice and treatment for those who cannot afford to pay for it, and there is no good reason why at least those who live in cities should not be able to secure the attention of a physician if required.

Disinfectants and Deodorants

In close relation to home medication is the misconception on the part of the public regarding the definition and use of disinfectants which are generally confounded with deodorants and purchased for the purpose of preventing or neutralizing offensive odors. The function of a true disinfectant is to destroy infectious germs and not odors, for even the most valuable disinfectants cannot be depended upon for this purpose. On the other hand deodorants are agents which neutralize offensive odors chiefly by chemical means but cannot be depended upon to destroy infectious germs.

During recent years the public has gained some information regarding the germ theory of infectious disease but it has been limited and has rather encouraged the belief that infection exists everywhere and that it is with great difficulty that we escape germs in their active state concealed in clothing, baggage, money, furniture, etc., and also in public places and conveyances. As a matter of fact this condition does not exist, for the fear of infection through these sources is largely without reason. Many unnecessary and ridiculous means are taken by the public to prevent disease, and this state of mind has been stimulated by an ever-increasing supply of so-called disinfectants which are advertised to free the home from all forms of disease. Many of these are of no practical value whatever and while others may under certain conditions be destructive to infectious organisms, their use in the household is as a rule uncalled for except in the presence of infectious diseases, when the disinfectants should be selected by the attending physician and used under his direction.

A number of deaths have recently occurred as the result of poisoning by bichloride of mercury or corrosive sublimate tablets, presumably taken by mistake for some headache cure or other patent medicine. Bichloride of mercury as well as other poisons, are often purchased for home disinfection, although as a rule the purchaser has no definite knowledge of the subject, but relies chiefly upon the advertisements and information which may be transmitted from one person to another. The sale of these articles should be not only prohibited by law except upon the prescription of a physician, but the public should know that these agents, except in special instances, are not necessary to insure a sanitary condition of the home, for this is obtained by fresh air and cleanliness, which includes a plentiful supply of soap and water. If this is properly carried out, there should be no offensive odors in the house and

the use of disinfectants should be left for the attending physician to look after when disease occurs.

An Effective Deodorant

In country districts or in places where there is no modern system of sewerage or proper outlet for filth. offensive odors occur in connection with privy vaults, cesspools or where garbage is deposited on the surface of the ground even when great care is used. This unpleasant condition is due to decomposed organic matter and requires the use of a deodorant and not a disinfectant, for it would be practically impossible to destroy the infectious organisms which might be present in such a mass unless every portion of it is thoroughly mixed with the disinfectant, which never occurs; besides, disinfectants would not necessarily destroy odors. Under these conditions a deodorant need not be purchased, for the most valuable and practical one in use may be provided with but little trouble or expense by adding a pound each of unslacked lime and sulphate of copper to ten gallons of water. This mixture costs less than one cent a gallon. If a large quantity is prepared for future use it should be kept in a closely covered receptacle, otherwise the water will Furthermore, this mixevaporate. ture does not easily dissolve and should be thoroughly stirred before using. There is no better or more economical way of applying it than by the common garden sprinkling pot. By this means the offensive material may be properly covered and the application repeated as often as necessary with but little cost.

This article will have been productive of some good if it has brought to the attention of the reader the danger of depending upon domestic remedies, the use of patent medicines, disinfectants, etc., and need of prompt medical care when the health is impaired and the employment of simple measures of cleanliness and plenty of fresh air in keeping the home in a good sanitary condition.

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